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POLLUTION OF INTERSTATE WATERS; MISSOURI RIVER, RIVER MILES 846.5-642.3 INCLUSIVE, SIOUX CITY, IOWA, JULY 24,1958. TRANSCRIPT OF CONFERENCE

Public Health Service
Kansas City, Missouri

August 1958

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TRANSCRIPT OF CONFERENCE

POLLUTION OF INTERSTATE WATERS

MISSOURI RIVER

RIVER MILES 846.5 — 642.3 INCLUSIVE

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

Public Health Service

August, 1958

CONFERENCE AT SIOUX CITY, IOWA
On Interstate Pollution In the Missouri River

Courtroom
U. S. Courts Building
Sioux City, Iowa

July 24, 1958

Chairman: Mr. Murray Stein
Chief of Enforcement Section
Water Pollution Control Program
U. S. Public Health Service
Washington, 25, D. C.

Conferees: Mr. Charles E. Carl
Director, Division of Sanitary Engineering
State Department of Health
Pierre, South Dakota

Mr. T. A. Filipi
Director, Division of Sanitation
Department of Health
Lincoln, Nebraska

Mr. Glen J. Hopkins
Regional Engineer, Region VI
U. S. Public Health Service
Kansas City, Missouri

Mr. Paul J. Houser
Director, Division of Public Health Engineering
Department of Health
Des Moines, Iowa

Mr. Dwight F. Metzler
Chief Engineer
Kansas State Board of Health
Topeka, Kansas

Mr. Jack K. Smith
Executive Secretary
Missouri Water Pollution Board
Jefferson City, Missouri

- - -

(A list of others in attendance is attached as "Appendix A")

MR. STEIN: The conference is opened.

This conference in the matter of pollution in the interstate waters of the Missouri River involving the states of South Dakota, Iowa, Nebraska, Kansas, and Missouri is being held under the provisions of the Federal Water Pollution Control Act. Under the terms of that Act, the Surgeon General is required to call a conference of this type when requested to do so by a state water pollution control agency. Upon receipt of a request from Dr. Edmund G. Zimmerer, Iowa Commissioner of Health, this conference has been called by the Surgeon General.

The purpose of the conference is to bring together state and local water pollution control agencies and the Public Health Service and other interested parties to review the existing situation, the progress which has been made, and to lay a basis for future action by all parties concerned and to give the states, localities and industries an opportunity to take any remedial action which may be indicated under state and local law.

The conference technique is a rather old one. As a matter of fact it is used by many state agencies informally in the normal conduct of their business in the field of water pollution control. The notion of a conference was proposed by the United States Supreme Court in the famous case of New York and New Jersey involving interstate pollution. The court said as far back as 1921:

> "We cannot withhold the suggestion, inspired by the consideration of this case, that the grave problem of sewage disposal presented by the large and growing populations living on the shores of New York Bay is one more likely to be wisely solved by cooperative study and by conference and mutual concession on the part of representatives of the states so vitally interested in it than by proceedings in any court however constituted."

This, we think, is particularly applicable to the relatively complex situation such as we have in the Missouri River. Under Section 8 of the Federal Act, the Surgeon General has notified the official state water pollution control agencies of this conference. These agencies are the South Dakota Committee on Water Pollution, the Nebraska Department of Health, the Kansas State Board of Health, the Iowa State Department of Health, and the Missouri Division of Health. Under the law, this is a conference between these official agencies and the Public Health Service.

The official agencies are privileged to bring whomever they wish to the conference and have them participate in the conference. The conferees have been designated by these official agencies:

For South Dakota the conferee is Charles E. Carl, Secretary and Executive Officer of the Committee on Water Pollution.

For Nebraska, T. A. Filipi, Director, Division of Sanitation of the Nebraska Department of Health.

For Kansas, Dwight F. Metzler, Director of Sanitation of the State Board of Health.

For Iowa, Paul J. Houser, Director, Public Health Engineering and Industrial Hygiene of the Department of Health.

For Missouri, Jack K. Smith, Executive Secretary, Water Pollution Control Board of Missouri.

For the Public Health Service, Glen J. Hopkins, Regional Engineer, Region VI, with headquarters in Kansas City, Missouri.

My name is Murray Stein and I am from headquarters, Public Health Service, Washington, D. C.

Now, I think by looking at the large and representative group we have at the conference table we can see the interrelationship of water pollution problems in a particular basin. Here we have five states and the federal government represented. We have had similar conferences in Omaha, Kansas City, St. Joseph, and St. Louis. And possibly one of the reasons is that the Missouri River is one of the few large interstate streams left in the country which is used as a source of service and industrial water supply where the cities, the large cities, are not treating their wastes. I think the movement toward this treatment has been going on in many areas of the country where many of the cities and industries, as a matter of fact most of them, are recognizing their obligations.

Both the states and federal government have responsibilities in dealing with interstate water pollution control problems. The Federal Water Pollution Control Act declares that the states have primary rights and responsibilities for taking action to abate and control interstate pollution. It has always been the policy of the Public Health Service to recognize this traditional role of the states. The function of the Public Health Service is to encourage the states in this activity. However, the Public Health Service is charged by law with specific responsibility in connection with interstate pollution control problems.

The Federal Water Pollution Control Act provides that pollution of interstate waters which endangers the health or welfare of persons in a state other than that in which the pollution originates is subject to abatement. The conference will be useful in providing a clear record delineating the progress which has already been accomplished and indicating what still needs to be done in correcting the interstate pollution problem.

Under the federal law, the Surgeon General is required at the conclusion of the conference to prepare a summary of the conference which will be sent to all conferees. The summary, according to law, must include the following:

(1) Occurrence of pollution of interstate waters subject to abatement under the Federal Act;

(2) Adequacy of measures taken toward abatement of pollution; and

(3) Nature of delays, if any, being encountered in the abatement of pollution.

It is suggested that the conference discussions be directed toward discussing these points so that we may prepare a serviceable summary at its conclusion. In addition, the law requires the Surgeon General to determine at the conclusion of the conference whether effective progress toward abatement of pollution, if such pollution exists, is being made.

To aid the Surgeon General in making this determination, it is strongly suggested that the conferees agree, if appropriate, upon a schedule of remedial action. Such a time schedule, of course, should be a realistic and reasonable one. Once this time schedule is accepted by the conferees, I should point out that it is primarily the function of the states to see that this time schedule is adhered to.

Now, a word about the procedures governing the conduct of the conference. Mrs. Virginia Hough is making a stenographic report of these proceedings for the purpose of aiding us in preparing a summary and also providing a record of what is said and done here. We will make copies of the summary and transcript available to the conferees. Other folks desiring to receive copies of the transcript and the summary should get in touch with their official state water pollution control agencies, who are represented by the conferees here, and request such copies.

An agenda has been provided for the conferees. The agenda is to aid us in directing our discussion toward the points required to be covered by law. However, the agenda can be adjusted to meet particular situations as they arise.

All the conferees will be called upon to make statements. The conferees, in addition, may call upon the participants they have invited to the conference to make statements. At the conclusion of such statements, the conferees will be given an opportunity to comment or ask questions, and at the conclusion of the conferees' comments and questions, I may ask a question or so, too. This procedure has proved effective in developing a clear statement of the problem and reaching agreements on equitable solutions.

Now, before we begin, I should like to take this opportunity to introduce Dr. Zimmerer, a health officer of Iowa.

Dr. Zimmerer, would you like to say something at this time, sir, to the conference?

DR. EDMUND G. ZIMMERER (Iowa Department of Health, Des Moines, Iowa):

Thank you, Mr. Stein. Members of the conference, ladies and gentlemen:

I come here as an observer, but an extremely interested one. Some three or four years ago I presided at a hearing looking toward the abatement of the pollution situation in the Floyd River, Perry Creek, and the Missouri River. The City of Sioux City was then represented by members of its Council, as were several of the industries.

I well remember the graphic portrayal of the situation, particularly in the Floyd River, which was shown by means of colored prints in the report of my department of Public Health Engineering. Any child could have seen that there was pollution; there was no disputing that. Nor did the city nor any of the industries make any defense.

An order was not entered at that time because of the agreement of the City Council of that time to carry out a program of improvement. That program was carried out for some years, practically, until recently a new council, a new city manager, I understand, by resolution declared that they were no longer going to continue this program.

The conference today is called, I think, for two reasons. First of all, it focuses again attention upon the health hazard that exists in the pollution of streams here in Sioux City and in the vicinity that endangers not only the health of people living in this community and other states but is of immediate concern to the citizens of Sioux City.

And secondly, the conference, I hope, will enable me to determine what further action should be taken in this matter.

I thank you, sir.

MR. STEIN: Thank you Dr. Zimmerer.

I should indicate the area that we are going to cover at this conference. As has been indicated in the notice sent to the conferees, the area to be covered covers discharges from Gavins Point Dam down to Omaha Water Intake. Of course also covered will be damages to water as far downstream in interstate waters as they go, and just for purposes of spotlighting the major municipal areas being covered, this will include Yankton, Vermillion, Elk Point, Sioux City, South Sioux City, Blair, and Dakota City.

Now, the next point on the agenda will be a general presentation of the interstate pollution problem. To start that I would like to call on Mr. Glen Hopkins of the Public Health Service. Mr. Hopkins.

MR. HOPKINS: Thank you, Mr. Stein.

The interest of the Public Health Service under the Federal Water Pollution Control Act in this region of the Missouri River dates back to 1949, at which time the regional office of the Public Health Service completed in cooperation with the five state health departments a plan for a cooperative investigation and report of the main stem of the Missouri River from the approximate location of Gavins Point Dam to the mouth at St. Louis. That was reported as a joint activity of the five state health departments and the Public Health Service in what is known as Water Pollution Series No. 47 for the Lower Missouri River Basin. This report points out that excessive pollution did in fact exist in the interstate reach of the Missouri River and that a program of correction was needed.

I would like to have this report referred to in the record: Water Pollution Series No. 47.

MR. STEIN: That will be marked as Government Exhibit No. 1.

(GOVERNMENT EXHIBIT NO. 1 MARKED FOR IDENTIFICATION.)

MR. HOPKINS: Shortly after that report, the Surgeon General, in compliance with his responsibilities under the Federal Water Pollution Control Act, adopted his comprehensive program for the Missouri River Basin. That program is constituted by a report known as Water Pollution Series No. 56, A Comprehensive Program for Control of Water Pollution, Missouri Drainage Basin, July 1953. The report also confirms that excessive pollution of the Missouri River does exist and that a corrective program is indicated.

I would like to have this report referred to also in the record.

MR. STEIN: That will be Government Exhibit No. 2.

(GOVERNMENT EXHIBIT NO. 2 MARKED FOR IDENTIFICATION.)

MR. HOPKINS: Recognizing that primary responsibility for programs relating to abatement of pollution was properly in the state water pollution control agencies, the regional office of the Public Health Service in September 1953 arranged a meeting of the same five state health departments in Omaha, Nebraska. At that time a uniform state program for the interstate reach of the Missouri River was agreed upon jointly by the five states and the Public Health Service.

In summary, that program provided that within the framework of its statewide program each state water pollution control agency would undertake activities as necessary to secure treatment of sewage and industrial wastes as outlined in the Water Pollution Series No. 47 previously referred to.

The principal objective of the treatment would be to improve raw water quality for domestic use. Minimum requirements for treatment would be removal of settleable and floatable solids with comparable treatment or pretreatment of those industrial wastes not readily susceptible to primary treatment.

I would like to have the record also reflect the summary of the conference of the states and the regional office of the Public Health Service under date of September 15, 1953.

MR. STEIN: May we mark that Government Exhibit No. 3.

(GOVERNMENT EXHIBIT NO. 3 MARKED FOR IDENTIFICATION.)

MR. HOPKINS: The activities of the Public Health Service I have described are a function of the field office in Kansas City as operating programs. The station of the Public Health Service where research and technical services are centered is the Robert A. Taft Sanitary Engineering Center in Cincinnati, Ohio. For the purpose of this conference we have arranged for the Sanitary Engineering

Center to review prior reports published by the Public Health Service cooperatively with the states on this reach of the river, published reports by the state health departments, and other data in the files of the Public Health Service and the state health departments, including laboratory data from water plants in this reach of the river.

The presentation of the Public Health Service relating to interstate pollution in this river reach will be made by a representative of the Sanitary Engineering Center who was assigned primary responsibility for this review and analysis of the data and information.

It is a pleasure at this time to present Mr. Francis W. Kittrell, who will make the official statement for the Public Health Service.

Mr. Kittrell.

MR. STEIN: Thank you, Mr. Hopkins.

Mr. Kittrell, before you start, may I call the attention of future participants, as well as Mr. Kittrell, to the procedure. We would suggest that when you have a statement to make you come to the bar and either use the table or the podium, lectern, as you wish. And you may want to try them both because we can't vouch for the lighting. It is a little dim. But just make yourself comfortable up here and we can proceed in that way.

Mr. Kittrell.

MR. F. W. KITTRELL (U.S. Public Health Service, Cincinnati, Ohio):

Mr. Chairman, conferees, gentlemen:

The Missouri River means a great many different things to a great many different people. It affords numerous opportunities for use and enjoyment, but it also presents a number of problems to those who use and enjoy it.

The geographer knows it as the longest river in our nation, flowing 2,500 miles from its headwaters on the Continental Divide to its junction with the Mississippi River at St. Louis and draining one-sixth of the land area of our nation. It serves as a convenient, though sometimes erratic, interstate boundary between states. In the section with which we are dealing, from Yankton, South Dakota, to Omaha, Nebraska, the Missouri is the interstate boundary between South Dakota and Nebraska, and between Iowa and Nebraska.

For the 330,000 persons living in the Omaha metropolitan area the Missouri serves as the source of water supply. As I shall show later, pollution poses a hazard to the health of this large population and causes problems for those responsible for treating the water to render it safe for drinking.

For the boating enthusiast the river affords an opportunity to enjoy this type of recreation. Boat harbors in the Big Sioux River, near its mouth, and in the Missouri just above Omaha are centers for boating on the main river in these areas. Boat ramps at Decatur and Blair, Nebraska, provide access to the river for trailer-carried outboard motor boats. Spray from the prows of boats in these areas carry water laden with sewage into the faces of the occupants. In the Sioux City area boaters are subjected to obnoxious odors and objectionable visual evidence of putrefying solids from sewage and industrial wastes.

The Missouri yields both game and rough fish to sport and commercial fishermen. Above the Sioux City-South Sioux City area catches include catfish, ling, sauger, paddlefish and sturgeon. Below the points of entrance of quantities of sewage and industrial wastes from the Sioux City-South Sioux City area carp represent about 70 per cent of commercial catches. For several miles below Sioux City, commercial fishermen have reported their nets become fouled with grease. Both sport and commercial fishermen are exposed to the sewage-polluted water.

The sand bars and spits of this section of the Missouri provide vantage points for those hunting ducks in this major waterfowl flyway. The duck hunters travel to and from their blinds by boat, and retrieve some of their kills from the contaminated river water.

While not recommended by health agencies, there is some use of the Missouri for swimming by persons, especially children, living near its banks. This use involves the most intimate contact with the contaminated water, which not only covers the entire bodies but inevitably enters the mouths and nostrils of the swimmers.

The Nebraska Game, Forestation and Parks Commission considers the Missouri River to be the major recreational asset of the eastern end of the state for those interested in water sports. It is the only major body of water readily available to those living in Nebraska counties adjacent to the section of the river between Sioux City and Omaha. About 360,000 persons live in these counties, and a total of about one-half million persons in the eastern end of the state live within easy driving distance of this section of the river. The commission is initiating a program to investigate means of access to the river and to define areas suitable for development for recreational use.

In the past the traditionally muddy waters of the Missouri and its restlessness in seeking new channels have discouraged full recreational use of the river. The large impoundments upstream from Yankton have materially reduced the silt content of the river, and the channel stabilization program now in progress is putting a stop to the meanderings of the river between Sioux City and Omaha.

All indications point to increasing recreational use of this section of the Missouri in keeping with both the improved characteristics of the river and the rapidly growing public demand for facilities for aquatic recreation.

The channel stabilization program involves river transportation of materials for revetments, dikes and wing walls. Those who transport the materials and those who put them in place are exposed to the same hazards of bacterial contamination to which recreational users of the river are exposed. As the channel stabilization program is completed, commercial navigation will become an increasingly important use of the river.

Thus far I have spoken of the health hazards and offensive nuisances of pollution in general terms. Let us now turn to the record for quantitative information on these conditions.

In 1950 the health departments of Iowa, Kansas, Missouri, Nebraska, and South Dakota, which border the lower Missouri River between Yankton and St. Louis, joined with the U. S. Public Health Service in a full year of field study to determine the status of pollution in this reach of the river. The results of this extensive investigation were published in October 1952 as a cooperative state-federal report on water pollution under the title "Lower Missouri River Basin Water Pollution Investigation." This report indicated that the lower Missouri River was one of the worst contaminated of our major rivers that are used extensively as sources of public water supply.

As a result of this finding, all municipalities taking water from the main river were encouraged to initiate daily examination of bacterial quality of their raw water. In the section of the river with which we are dealing, the Omaha Metropolitan District Water Department has daily records of raw water quality since 1953. Since 1954 the Yankton Water Department has submitted one or two raw water samples monthly to the laboratory of the South Dakota Department of Health for bacterial examination. More recently this water department has joined the network of agencies operating the National Water Quality Basic Data Program in cooperation with the Public Health Service, and raw water bacteriological data are now available on a weekly basis at Yankton.

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These data have been combined with miscellaneous information from files of state water pollution control agencies and of the Public Health Service regional office, and with information assembled through discussions with representatives of responsible agencies and through personal observation to provide the basis for a "Report on Interstate Pollution of the Missouri River, Yankton, South Dakota, to Omaha, Nebraska." The facts that follow are drawn from this report, which I would like to submit as an official document of this conference.

MR. STEIN: May we mark that Government Exhibit No. 4.

(GOVERNMENT EXHIBIT NO. 4 MARKED FOR IDENTIFICATION.)

MR. KITTRELL: First let us establish the facts regarding the sources of wastes that contribute to the interstate pollution of this section of the Missouri. Chart No. 1 has been prepared to illustrate relative responsibilities for bacterial contamination of the river. The diameters of the vermillion circles are in proportion to the sewered populations of the municipalities involved. Sewage bacteria are used in this presentation to reflect the extent of sewage production as much as to demonstrate a health hazard.

It is obvious that the untreated sewage from Sioux City, with its sewered population of 70,000, dominates the sources of bacterial contamination. The Sioux City sewered population is 76 per cent of the total sewered population of 92,000 in towns on or near this section of the Missouri. Of the other towns Yankton, Vermillion and Elk Point in South Dakota contain about 15 per cent of the sewered population. All of these are above Sioux City. Ponca, South Sioux City, Dakota City and Blair in Nebraska contain about 9 per cent of the sewered population. The sewered population of the small Nebraska town of Decatur, with a total population of about 800, is not included in these figures. Decatur is next to the smallest of the towns involved. It alone has discharged its responsibility for providing sewage treatment. Blair, however, does have a plant under construction.

The foregoing percentages are based on sewage only. There are other sources of coliform organisms, which may be defined as bacteria that are typically of sewage origin. For the sake of simplicity I shall take a small liberty with the technical definition of the term "coliform organisms" and in the remainder of this statement I shall refer to them as "sewage bacteria."

It is desirable to place the sewage bacteria from sources other than sewage on a basis comparable to those from the known sewered populations for the purpose of judging the relative importance of the other sources in the over-all situation. This can be done rather simply. We know that the sewage produced by one person in one day contains about four hundred billion sewage bacteria. If we determine the concentration of sewage bacteria and the flow of a stream at a sampling station we can compute the total number of sewage bacteria carried past the sampling point by the stream on the day the sample was taken. If we divide this total number by the sewage bacteria produced daily by one person we obtain a value that represents the number of persons that would be required to produce sewage which would cause the same concentration of sewage bacteria in the stream as that found at the sampling point. To avoid confusion with the more usual population equivalent based on oxygen demand, I shall term this value the bacterial population equivalent.

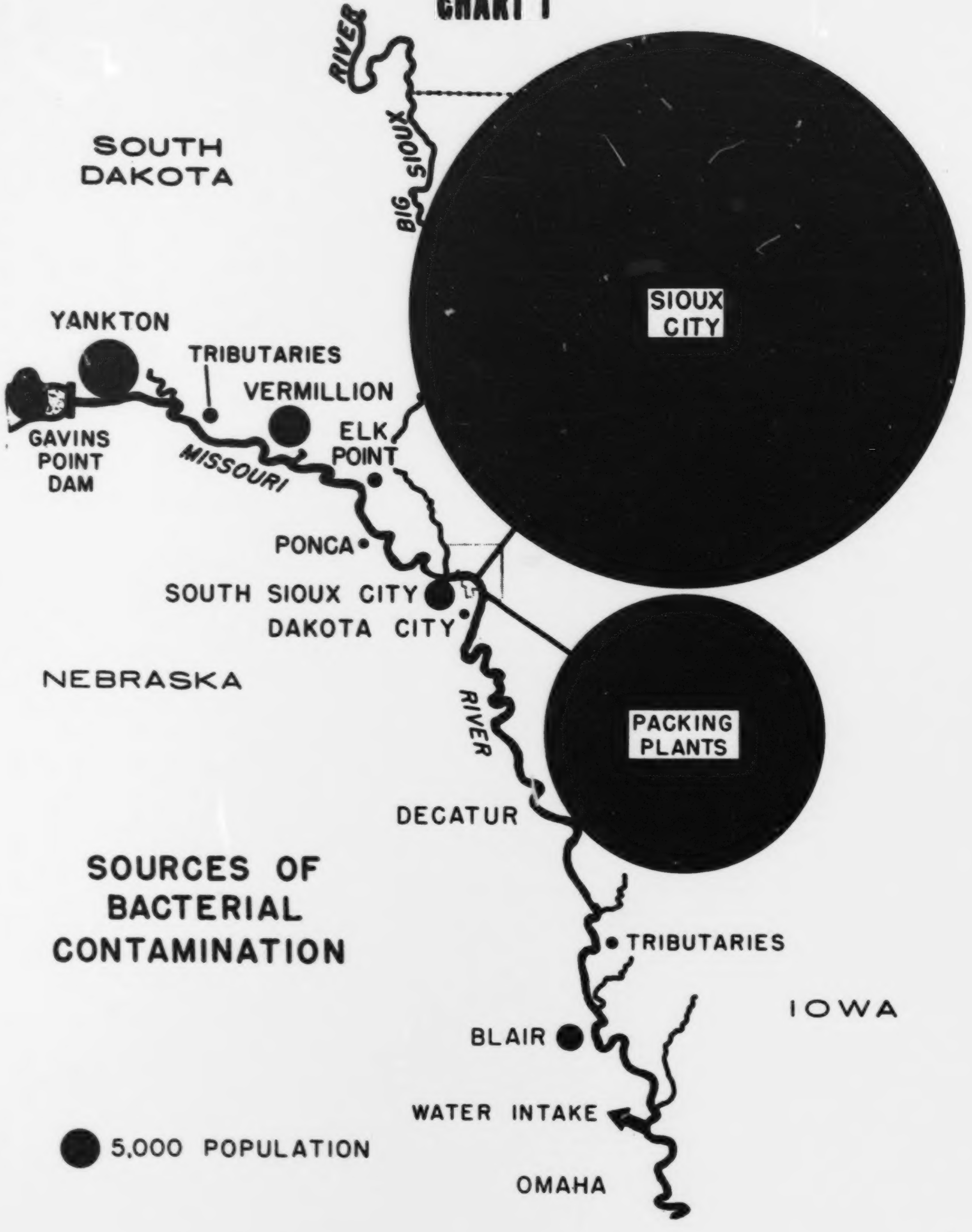
This device has been applied to bacteriological data obtained on Floyd River above and below the packing plants during the 1950 study and again in 1952-1953 by the Iowa Department of Health. The results indicate that the sewage bacteria contributed to the Missouri River by the packing plant wastes were equivalent to the bacterial content of sewage from 35,000 persons. This represents about 32 per cent of the sewage bacteria from all sources of waste along this section of the Missouri.

It has been thought by some individuals that sewage bacteria carried into the Missouri and its tributaries by surface runoff following rains accounted for much of the excessive bacterial contamination of the Missouri River. Data in the 1952 state-federal cooperative report converted to bacterial population equivalents provide a basis for evaluating the validity of this belief.

The James, Big Sioux, and Floyd river basins comprise 75 per cent of the total drainage area tributary to the Missouri River between Gavins Point Dam and Omaha. The James and Big Sioux were sampled near their mouths and the Floyd just above Sioux City in 1950. Conversion of the data for these three sampling points to bacterial population equivalents show that the three rivers combined carried sewage bacteria equivalent to the bacterial content of sewage from about 1,700 persons during summer and from about 2,000 persons during winter. Proportional increases in these values to allow for the total tributary drainage area indicates that the bacterial population equivalents attributable to surface runoff were about 2,300 for summer and 2,600 for winter. Chart No. 1 shows the approximate distribution of the summer bacterial population equivalents from tributaries above and below Sioux City and their relation to quantities of sewage bacteria from other sources. I wish to emphasize that the tributary bacterial population equivalents include not only the effects of contamination from surface runoff but also the residual sewage bacteria from sewered communities upstream on the tributaries.

Chart No. 1 also shows the bacterial population equivalent carried by the Missouri River above Yankton. This was 4,550 in the

CHART 1



SOURCES OF BACTERIAL CONTAMINATION

RIVER
BIG SIOUX
SOUTH DAKOTA
SIOUX CITY
YANKTON
TRIBUTARIES
VERMILLION
ELK POINT
GAVINS POINT DAM
MISSOURI
PONCA
SOUTH SIOUX CITY
DAKOTA CITY
NEBRASKA
RIVER
PACKING PLANTS
DECATUR
TRIBUTARIES
IOWA
BLAIR
WATER INTAKE
OMAHA
● 5,000 POPULATION

summer of 1950, before most of the reservoirs upstream were impounded. Since completion of Gavins Point Dam the bacterial population equivalent of the Missouri above Yankton has dropped to about 100.

So much for the sources of bacterial contamination. There are other pollutional materials to be considered.

Sioux City and South Sioux City combined discharge about ten tons of human feces to the Missouri each day. During November 1955 through January 1956 the packing plants in Sioux City discharged about twenty tons of suspended solids and nearly twenty-three tons of grease daily to the Floyd River just above its confluence with the Missouri River. The suspended solids included quantities of paunch manure and animal hair. The wastes included unmeasured volumes of blood.

The presence of the obnoxious solid materials along the Sioux City waterfront was observed during a boat trip in April 1958.

At the mouth of the Perry Creek sewer, just below Combination Bridge, the water appeared grey, floating feces and other sewage solids were obvious, and gas bubbles from sludge deposits rose to the surface. An odor typical of stale sewage could be detected for some distance from the mouth of the sewer.

The mouth of Floyd River appeared almost clogged with the untreated packing plant wastes. Floating masses of grease and solids, apparently from paunch manure, lined the banks, extended well into the stream, and clung to every solid object on the surface of the water. Where the water was not red with bloody wastes it was grey with decomposing organic wastes. Gas bubbles rose from sludge deposited on the bottom. Offensive odor filled the atmosphere.

Starting just above the mouth of Floyd River and extending about a mile upstream in the Missouri are revetments installed in connection with the channel stabilization program. The main revetment is roughly parallel to and about 50 to 100 feet out from the bank. This revetment is connected to the bank at intervals by short revetments perpendicular to it. The installation resembles large tanks built in the river.

Several sewers, some of which apparently carried industrial wastes, discharged untreated wastes into these tanks. The result was, in effect, a series of giant septic tanks along the Sioux City waterfront. Masses of scum and debris, typical of the refuse of a large city, covered large portions of the surface. Where the water could be seen it was grey and lifeless except for rising bubbles of putrefaction. Odor typical of septic organic wastes pervaded the atmosphere.

The effects of bacterial contamination on the Missouri River are illustrated by Chart No. 2. The engineering section of the Missouri

Basin Health Council, representing the water pollution control agencies of the ten Missouri basin states, has adopted water-quality objectives which define conditions that constitute pollution of the Missouri River. For water used as a source of municipal water supply with treatment such as that provided at Omaha, and for recreational uses, with the exception of swimming, the bacterial quality objective states that the average concentration of sewage bacteria should not exceed 5,000 per 100 milliliter in any one month. This objective is indicated by the small brown circle on the chart. The objective for water used for swimming states that the average concentration of sewage bacteria shall not exceed 1,000 per 100 milliliter in any month of the recreation season. Other objectives restricting the ranges of daily concentrations of sewage bacteria are somewhat more complicated and need not be introduced at this point.

Chart No. 2 shows concentrations of sewage bacteria at selected points on the Missouri River in relation to the water supply and the recreation objective. The data represent conditions found in the summer of 1950. Above Yankton, the median concentration of sewage bacteria was 2,300 per 100 milliliters, or a little less than one-half of the objective. Since Gavins Point Dam was installed the bacterial concentration above Yankton was dropped to 50 to 70 per 100 milliliters.

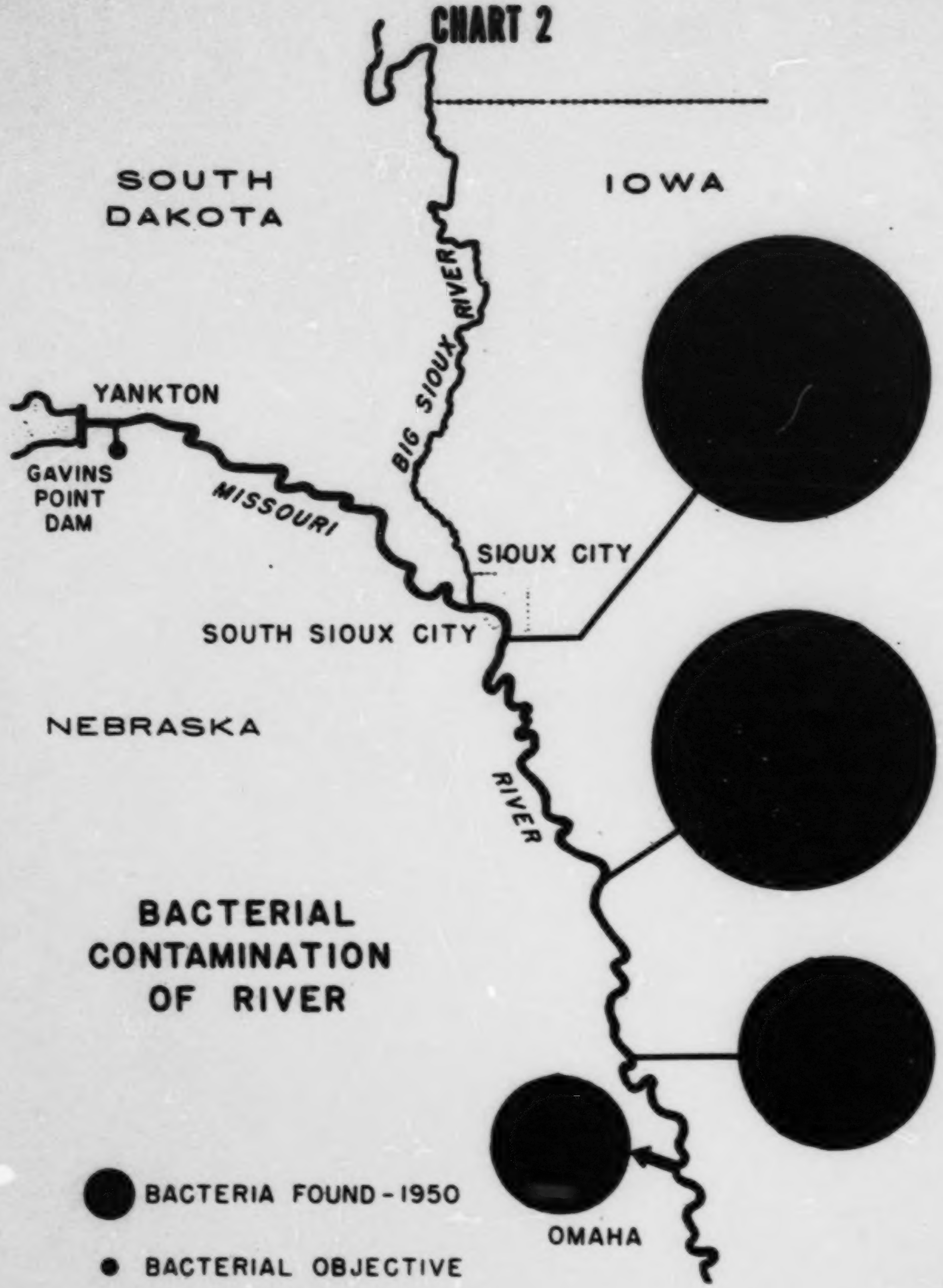
Immediately below the Sioux City-South Sioux City area the sewage bacteria increased to 93,000 per 100 milliliters, or nearly nineteen times the objective. Between here and the Omaha water plant the sewage bacteria dropped to 46,000 per 100 milliliters, which still was nine times the objective.

This statement deals with the Missouri River only as far downstream as the Omaha water plant. Residual effects of contamination from the Sioux City-South Sioux City area continue past Omaha to join the loads of pollution from Omaha and Council Bluffs. Below those cities the residual contamination from the Sioux City-South Sioux City area exerts its proportional effects on downstream water uses.

The foregoing data mean that each drop of water sprayed into the face of the occupant of a boat just below Sioux City averaged about forty sewage bacteria. Just above Omaha each drop of water averaged about twenty sewage bacteria.

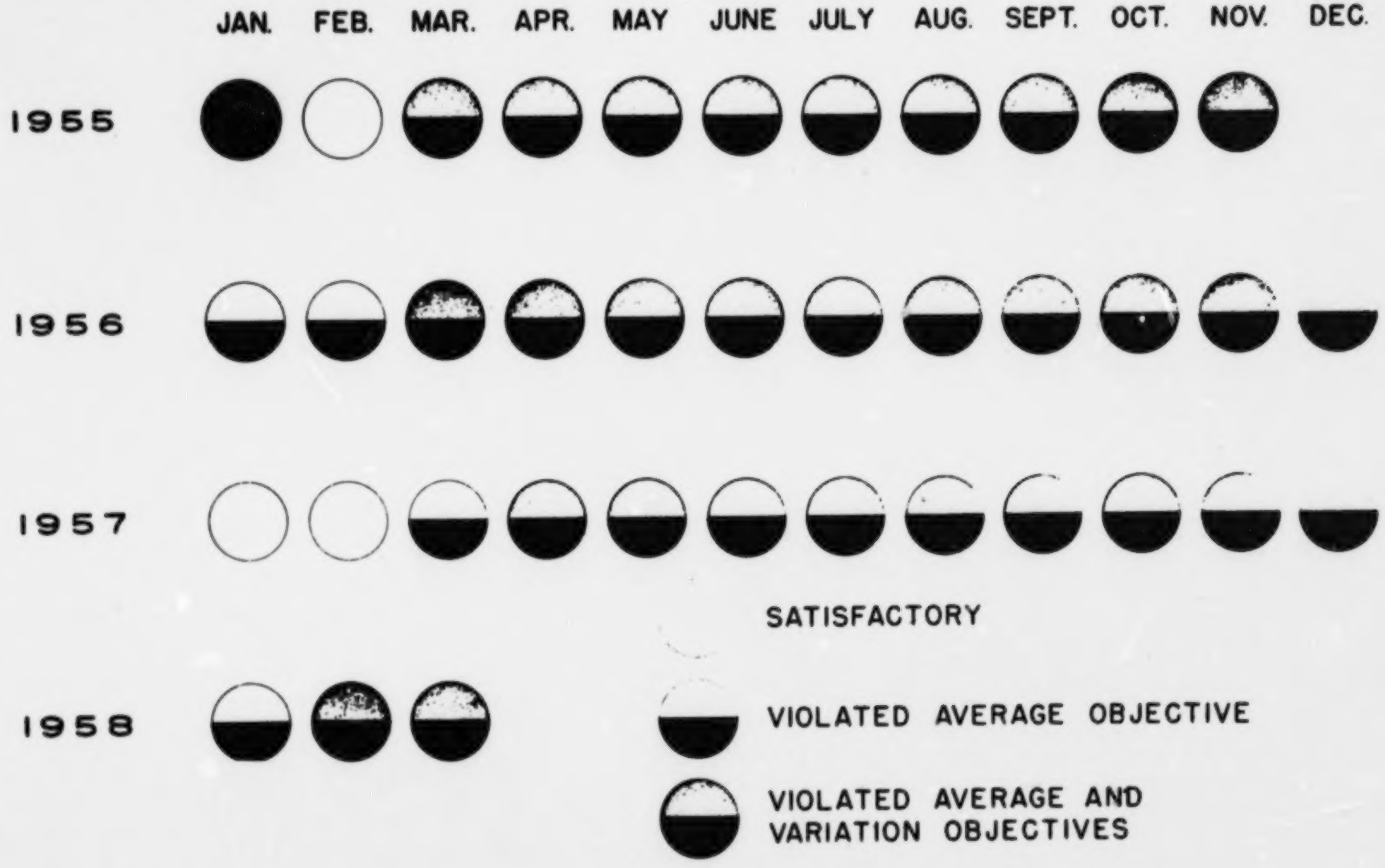
Chart No. 3, based on daily records of the Omaha water plant, shows the months during the period, January 1955 through March 1958, when the sewage bacteria at the Omaha water plant intake exceeded the water supply objective. Here we have included both the monthly average objective and the permissible range in daily concentrations. The latter objective states that not more than 5 per cent of the daily concentrations of sewage bacteria shall exceed 20,000 per 100 milliliters in any one month. On the chart the months during which the 5,000 per

CHART 2


SOUTH DAKOTA
IOWA
BIG SIOUX RIVER
YANKTON
GAVINS POINT DAM
MISSOURI
SIOUX CITY
SOUTH SIOUX CITY
NEBRASKA
RIVER
OMAHA
● BACTERIA FOUND - 1950
• BACTERIAL OBJECTIVE

BACTERIAL CONTAMINATION OF RIVER

CHART 3



OMAHA RAW WATER QUALITY

100 milliliters average was exceeded are shown by the red lower halves of the circles. The months during which 5 per cent of the daily concentrations exceeded 20,000 per 100 milliliters are shown by the blue upper halves of the circles. The open circles indicate months when the raw water at Omaha was satisfactory.

During the 39-month period, the raw water was satisfactory only for five months, violated both objectives for thirty months, and violated the average objective for thirty-four months. The average monthly values ranged from a low of 2,000 per 100 milliliters to a high of 246,000 per 100 milliters. The average of all summer monthly averages for the three years was 38,600 per 100 milliliters for the summer of 1950, and indicates that the 1950 data were representative of typical conditions.

The 38,600 per 100 milliliters summer average means that the seventy million gallons per day of Missouri River water pumped into the Omaha treatment plant carried a daily average of one hundred trillion sewage bacteria into the plant. This is the number of sewage bacteria that would be introduced to the water pumped into the plant if the raw sewage from 250 persons were discharged directly into the water intake. On the days of record when contamination was greatest, the sewage bacteria entering the intake were equivalent to those from a sewered population of 15,000.

Sewage bacteria occasionally survive the plant's treatment processes to enter the Omaha water distribution system. About two years ago the water department revised the chlorination facilities at the treatment plant at a cost of about $50,000 to combat this health hazard to the 330,000 water consumers. In addition, several expensive chlorine residual recording instruments have been installed at selected points in the treatment process to maintain continuous checks on adequacy of the chlorination process. Even since these unusual precautions were taken, sewage bacteria have passed through the treatment processes. During January and February 1957 there were five days when this type of contamination was found in the treated water. In addition, if the chlorination process should fail, the remaining treatment processes would be totally inadequate to cope with the excessive bacterial contamination of the raw water and an epidemic of water-borne disease almost certainly would follow in Omaha.

The data show that the Missouri River between the Sioux City-South Sioux City area and Omaha presents hazards to health to those who use it as a municipal source of water supply, to those who use it for all forms of recreation that involve close contact with the water, and to those engaged in commercial fishing and in navigation.

The Engineering Council also adopted objectives for control of nuisance conditions. These objectives require that the minimum acceptable treatment for both sewage and industrial wastes is the removal of settleable and floating solids to prevent sludge banks, floating materials, and nuisance conditions.

Anyone approaching certain areas of the Sioux City waterfront either by water or by land is subjected to the objectionable sights and odors that result from untreated sewage and packing plant wastes. These noxious conditions consist of masses of floating solids and scum, discolored water, and foul odors arising from the floating materials and from sludge banks on the river bottom. This reduces the enjoyment of the river for those using the river for recreation.

Some of the solid materials carry downstream as far as the Omaha water plant intake. Here, at time, the metal screens that protect the raw water pumps against large floating objects become covered with grease which contains animal hairs. Some of the grease passes into the water treatment plant to float on the water surface and to coat the walls of concrete basins used in treating the water.

At times large numbers of condoms accumulate on the Omaha water intake screens. Some of these, also, pass through the screens to enter the water treatment basins. Sometimes it is necessary to assign one of the plant operators responsibility for dipping the condoms from the basins.

These conditions, both along the Sioux City waterfront and at the Omaha water plant, are in violation of the water-quality objectives adopted by the Engineering Council of the Missouri basin states to prevent nuisances arising from the discharge of untreated sewage and industrial wastes.

The grease and condoms are solid objects that can be seen. They travel from the Sioux City-South Sioux City area to Omaha with little change. They enter the water plant as solids which are separated from the water in the treatment processes, and do not enter the distribution system. There are soluble, unseen materials in the river that also reach Omaha. It is estimated that a little more than one-half of the ten tons of human feces discharged into the river daily in the Sioux City area reaches Omaha in solution in the river under normal summer conditions. Since this material is in solution it is reduced little, if any, by water treatment plant processes, and passes into the water distribution system. Thus, every glass of water drunk from the municipal distribution system at Omaha contains traces of partially decomposed human feces from the Sioux City area.

It is evident that pollution of the Missouri River in and below the Sioux City-South Sioux City area constitutes pollution of interstate waters subject to abatement under the Federal Water Pollution Control Act as such pollution endangers the health and welfare of persons in states other than those in which the discharges contributing to such pollution originate.

MR. STEIN: Thank you, Mr. Kittrell.

Mr. Kittrell, don't leave.

We would like to ask the conferees if they have any comments or questions on the presentation? Perhaps we can start at this end of the table.

Mr. Houser?

MR. HOUSER: I don't have any questions.

MR. STEIN: Mr. Smith?

MR. SMITH: No.

MR. STEIN: Mr. Carl?

MR. CARL: No.

MR. STEIN: Do you have any, Mr. Hopkins?

MR. HOPKINS: I have no questions.

MR. STEIN: I would like, for the sake of the record, and I know you covered this, to emphasize certain facts.

In your opinion, based on the report that you have given, is the bacteria loading of the river due to surface runoff from farms and other places or from the Sioux City area?

MR. KITTRELL: Most of the time the bacterial contamination of the river is due to sewage from towns on or near the river. Occasionally there are excessive concentrations from surface runoff.

MR. STEIN: Thank you, Mr. Kittrell.

Again before we go on, I think a sheet is being passed through the audience for attendance purposes, and it would be appreciated if you folks out there would sign this sheet.

At this time we would like to call upon the conferees to introduce the localities they have brought with them and who in large measure are responsible for considerable of the staff work.

Mr. Houser, who would you want to introduce?

MR. HOUSER: I would like to introduce Mr. Schlickelman, who is handling sewage work in our department, in our division: and Mr. Jack Shay, who is an associate of Mr. Schlickelman. Sitting next to him there is Mr. Glen Ehrich, who is the regional engineer for this area.

At this time I would like also to introduce Mr. Harry Harrison of the State Conservation Commission, who will present a statement later.

That is all.

MR. STEIN: Thank you.

Mr. Smith, would you like to introduce anyone?

MR. SMITH: I would like to introduce Mr. Albert Happy of the Missouri Division of Health, director of the Section of Environmental Health Services, Division of Health.

MR. STEIN: Thank you.

Mr. Carl.

MR. CARL: Mr. Chairman, I have Mr. Donald C. Kalda, who is chief of the Water Pollution Control Section, Division of Sanitary Engineering, South Dakota Department of Health.

Mr. Echelberger, who is our district engineer of southeast South Dakota.

We also have Mr. Les Berner, who is chief of the Game Division of our Department of Game, Fish and Parks, who is here representing Mr. Harry Woodward, acting director of that department, who is a member of the South Dakota Committee on Water Pollution.

Les, will you stand up, please?

MR. STEIN: Thank you.

Mr. Filipi?

MR. FILIPI: I would like to introduce Mr. T. C. Reeves, who is a member of the Nebraska Water Pollution Control Council.

Mr. George Fisher, director of Public Works for the City of Omaha.

And with him is Mr. Ulrich, sanitation engineer for the City of Omaha.

Mr. DeBord, who is in charge of sewer engineering for the City of Omaha.

And I believe there is one other person from Omaha here, is there not? Yes. Mr. Paul Bolton, who represents Henningson, Durham & Richardson, who are consulting engineers for the city of Omaha sewer works project.

And wasn't there one other?

Mr. Gabe Parks, representing the World-Herald down there.

And then we have Mr. Glen Foster, representing the Nebraska Game, Forestation and Parks Commission.

Is there anyone else here from Nebraska whom I did not recognize?

Thank you, sir.

MR. STEIN: Thank you.

Before we get to Mr. Metzler, we have just been informed that no smoking is permitted in this room and those of you who are familiar with courtrooms realize that this isn't an unusual request. I understand they are very strict about it and since I would imagine, being a member of the federal bar, I might be accountable, I would appreciate it if you didn't smoke.

Mr. Metzler?

MR. METZLER: I have no one to introduce from Kansas.

Thank you.

MR. STEIN: Thank you.

Mr. Hopkins?

MR. HOPKINS: Mr. Leonard Dworsky, assistant regional engineer of the Public Health Service for Water Supply and Water Pollution.

And Harold Clark, senior bacteriologist of the Robert A. Taft Sanitary Engineering Center in Cincinnati.

I believe that is all.

MR. STEIN: Thank you.

By the way, many of the city people will be introduced later when the city and industries are called on to make presentations.

At this point we should like to call on Mr. Carl to start off the next portion of the agenda dealing with sources of pollution, nature of wastes, and state programs of corrective action.

Mr. Carl.

MR. CARL: Mr. Chairman, gentlemen of the conference, and other individuals in attendance interested in water pollution control on the interstate portion of the Missouri River in the vicinity of Sioux City:

South Dakota is located at the upper end of the interstate portion of the Missouri River. Inasmuch as it is generally agreed that this section starts at Gavins Point Dam, there are three communities in South Dakota discharging untreated sewage wastes below Gavins Point Dam: Yankton, on the Missouri River; Vermillion on the Vermillion River a few miles above the Missouri River; and Elk Point on the Missouri River.

Laboratory investigations during the 1950 survey period indicate that Missouri River water, above sources of waste discharge at Yankton, is practically free of pollution with coliform densities in terms of M.P.N. per 100 milliliters of 91-24,000, resulting in an average of 4,700 and a median of only 1,100. The combined population equivalent of the wastes discharged from these three communities is approximately 17,350. This is practically insignificant when considering the capacity of the receiving stream with a minimum recorded flow at Sioux City of 3,740 cubic feet per second, and a ten-year minimum of 6,260 cubic feet per second. Nevertheless, the old adage still holds--drops of water make the ocean, and grains of sand the land--and successive small increments of pollution contribute to the total pollutional load.

The water pollution control authorities of the State of South Dakota have a sincere interest, in addition to a statutory responsibility, for water pollution control of the interstate portion of the Missouri River from that point just above Yankton through your mutual state boundary with Nebraska and Iowa.

The statutory responsibility in South Dakota stems from both the general public health statutes and the water pollution control statutes. The General Health Statute, Chapter 27.01, South Dakota Code of 1939, as amended by the 1957 legislative session, delegates responsibility for the control of water pollution to the State Health Department. The applicable statutory references follow:

> Section 27.0104 Advisory Committee: powers. The Public Health Advisory Committee shall have the power:
>
> > Paragraph 3. To make, alter, and enforce all rules and regulations and to take such action or cause to be such investigations as may be required in the interest of the public health:....
> >
> > Paragraph 4. To make, alter and enforce, after the approval of the Attorney General, orders, directions, or regulations as may be necessary to preserve and protect the public health and to regulate by requiring the taking out of licenses or other appropriate means, control, and, in proper cases, prohibit and suppress any of the following matters:
> >
> > Paragraph 4(e). The pollution of streams and other waters and the distribution of water for drinking or domestic use.

The South Dakota Department of Health has assumed these responsibilities and the State Health Officer has charged the Division of Sanitary Engineering with the administrative control.

In addition to the general health statutes, there are the water pollution statutes incorporated in the general water laws of the state. The original statute was passed in 1935, revised in 1947 to require a permit for the discharge of wastes, and revised in 1955 to replace the state engineer by the chairman of the Water Resources Commission as a member of the Committee on Water Pollution. These water pollution control statutes are administered by a Committee on Water Pollution composed of the director of the Department of Game, Fish and Parks; the chairman of the Water Resources Commission and the state health officer of the South Dakota Department of Health as ex officio chairman. The director of the Division of Sanitary Engineering, South Dakota Department of Health, is the secretary and executive officer. All work of the Committee on Water Pollution is charged to the Division of Sanitary Engineering; consequently, both the general water pollution control statutes of the public health law and the water pollution activities of the state water laws are handled administratively in the Division of Sanitary Engineering.

Among other activities charged to the Committee on Water Pollution is the classification of the public waters of the state into Class A waters and Class B waters. The statutes provide that Class A waters shall be those waters, or parts thereof, in which the pollution or corruption entering such waters can be so controlled that the waters receiving such pollution and corruption shall not be unwholesome or unfit for domestic use or unsafe as a source of public water supply, or deletorious to fish or plant life, or shall not cause a public nuisance.

Class B waters shall be those waters, or parts thereof, which are important to the welfare of the state as carriers of wastes, providing such wastes are not detrimental to the public health. The Water Pollution Committee, at a meeting on November 7, 1935, discharged its obligations with respect to the classification of waters by adopting the following resolution:

> Class A Waters. Class A waters shall include all public waters in the state of South Dakota except those hereinafter classified as Class B waters.
>
> Class B Waters. Class B waters shall include Whitewood Creek from its source in Lawrence County, South Dakota to the junction of Whitewood Creek in the Belle Fourche River, Butte County, South Dakota.

From the resolution it is noted that all waters in the state except Whitewood Creek are Class A waters; consequently, the South Dakota portion of the interstate section of the Missouri River is a Class A water and the resolution, as adopted in 1935, affects any new wastes being discharged to the Missouri River over that stretch in question.

South Dakota participated with the other four states on the lower portion of the Missouri River in a water pollution study starting January 1950. This study consisted of sampling and laboratory determinations to determine the extent of pollution, and the results of the study were published in a report dated October 1952 and entitled, "Lower Missouri River Basin Water Pollution Investigation - A Cooperative State-Federal Report on Water Pollution." The report contains the recommendation that the states achieve, as rapidly as possible, a minimum of primary treatment for municipal and industrial wastes and additional treatment as necessary to protect downstream users.

The South Dakota Committee on Water Pollution, in a meeting on January 19, 1953, adopted the following resolution:

> "The Water Pollution Committee goes on record as favoring a policy of no less than primary treatment or its equivalent for domestic or industrial wastes prior to discharge to any Class A streams and that dumps on Class A waters be eliminated; that municipalities not

> having sewage treatment or adequate sewage disposal facilities be required at the discretion of the Committee to have a permit for sanitary sewer extensions; and that an aggressive program for promoting waste treatment plants be instituted for those communities and industrial concerns that are presently discharging untreated wastes into Class A water courses."

The South Dakota Public Health Advisory Council, at a meeting on June 26, 1953, adopted an identical resolution.

With these instructions by the Committee on Water Pollution and the Public Health Advisory Council, which, incidentally, applied statewide as well as to the interstate portion of the Missouri River, the Division of Sanitary Engineering immediately initiated a program of contacting and aggressively promoting sewage treatment facilities for all communities where treatment was considered inadequate. With specific attention to the interstate portion of the Missouri River, personal contacts were made at Yankton, Vermillion, and Elk Point to advise them of this policy: on October 15, 1953, at Yankton and Vermillion and on November 24, 1953, at Elk Point. This personal contact was followed with an official, written notification on December 1, 1953, to all three communities.

MR. STEIN: Thank you.

Are there any comments or questions on Mr. Carl's statement?

May we then call on Mr. Filipi for a statement on sources of pollution, nature of wastes, and state program of corrective action.

Mr. Filipi.

MR. FILIPI: Mr. Chairman, Mr. Reeves is presenting our discussion. Do you want to have him appear at this time, or would you rather have him appear at a later time?

MR. STEIN: Will his discussion be directed to the state program of corrective action?

MR. FILIPI: Yes. Mr. Reeves is representing the Nebraska Water Pollution Control Council in his comments.

MR. STEIN: Yes. Would you have him come at this time?

MR. FILIPI: Mr. Reeves, would you come forward, please, and give your discussion?

MR. STEIN: Mr. Reeves, before you begin, would you and all others who participate in a like manner first introduce themselves by giving your full name and your position to Mrs. Hough and then begin your statement. Thank you.

MR. T. C. REEVES (Nebraska Water Pollution Council, Central City, Nebraska):

Chairman Stein, official conferees, ladies and gentlemen:

In relation to the record, I am T. C. Reeves, Central City, Nebraska. I am a member of the Nebraska State Water Pollution Council; I represent agriculture on that council.

I think that I could probably say that this is an education and a privilege for me to attend this conference. It probably is a little bit unusual to bring in a man from a rural area, a grass-roots farmer, a man who lives some 135 miles at the closest point to the Missouri River, and concern himself with the problems which affect the populated areas on the river. However, in the trend at the present time, the welfare of all of us is so interrelated that certainly all of us can assume the opportunity and responsibility for considering the problems which affect generally the welfare of the people.

It is a privilege, of course, to bring this official communication from the Nebraska Water Pollution Council.

In designating the responsibility and duties of the State Department of Health, Chapter 71-502 of the Revised Statutes of Nebraska, 1943, as amended, in part reads:

> "The Department of Health shall have supervision and control of all matters relating to necessary sanitation and quarantine; and shall formulate, adopt and publish such proper and reasonable general rules and regulations as will best serve to promote sanitation throughout the State, and prevent the introduction or spread of disease."

It has always been known in public health activities that the improper disposal of human wastes is the cause of much disease and that no sanitation program is ever planned or placed into operation that does not have as its primary objective the safe disposal of human wastes. Therefore, the Department of Health has always been concerned with proper sewage disposal, ever since its organization in 1891. A comprehensive program of education, dissemination of information, adopting of necessary rules and regulations, follow-up through enforcement has been carried on for the construction of sanitary pit toilets, home sewage disposal systems, semipublic and sewerage systems, and properly designed, constructed and operated sewage treating plants.

The present policy of the Department of Health is that of not approving plans and specifications of new sewerage systems unless treatment of sewage is provided. It also is the policy of the Nebraska State Department of Health that plans and specifications of substantial extensions to an existing sewerage system will not be approved unless a treating plant is included as part of the plan or is considered in a program for construction in the very near future. In the administration of this policy, construction work on additions to sewerage systems has been ordered stopped on several occasions until satisfactory sewerage treatment had been provided. This policy has been followed for communities not only in the State of Nebraska, but also those that discharge into boundary streams, such as the Missouri River.

This present program has now developed to the extent that we have 187 sewage treating plants serving approximately 431,000 people. There are also at least 25 communities that have active plans for the construction of treating plants.

Nebraska has been active in the promotion of sewage treatment and stream pollution abatement in the Missouri River Basin and immediately agreed to the adoption of water quality objectives by the Engineering Section of the Missouri Basin Health Council on January 7, 1954. These water quality objectives are still being used and will continue to be in use until such time as higher criteria or stream quality standards are set up. A recently formed Nebraska Water Pollution Control Council adopted these water quality objectives in their meeting of June 4, 1958.

With the above objective and Health Department policy in mind active promotion of sewage treatment plants have been carried on along the Missouri River to such extent that a conference was held with representatives of each community now discharging untreated sewage into the Missouri River and assurance has been given to us that an active program for sewage treatment will be adopted. In several cases, a plan is already in action. This consists of engineering studies, arrangements for financing, presentation of the program to the citizens through elections, and making application for federal construction grants.

Several communities have been delaying active construction until larger communities upstream have started construction. Typical of this is South Sioux City, Nebraska. In conferring with representatives of Sioux City we were given assurance that they are ready to start construction of treating facilities as soon as a heavy contributor of untreated sewage, Sioux City, Iowa, has their plant under construction. With this thinking we cannot help but agree.

Realizing that a large treating plant requires much study, planning and time for preparation of plans and specifications, several representatives of downstream communities are now going ahead without waiting for the larger upstream polluters to get construction under way. Typical of these are the municipalities of Blair, Bellevue and Plattsmouth, who already have their necessary programing and planning set up. Therefore, with the public health significance of discharging untreated sewage in mind and knowing that the larger communities will inevitably discharge larger quantities of undesirable bacteria than the smaller communities, it is our opinion that immediate action should be taken upstream in treatment plant construction to protect all water interests. Nebraska communities will then assume their responsible share of sewage treatment for a general clean-up of the Missouri River.

As discussed above, Nebraska Communities have been assuming the responsibility of treating their sewage regardless of stream condition, bacteria counts, or other present day measures of pollution. If, on the other hand, it is necessary to show the pollution that is affecting the Missouri River, we have records taken at the Omaha water works. Standards adopted by the U. S. Public Health Service for water that is to be served to interstate carriers which have been adopted by reference by many of the states, Nebraska included, indicate that the coliform density of raw water to be treated should not exceed 5,000 per 100 milliliters. For the year of 1957 and the first five months of 1958 this bacteria count at the Omaha water works intake exceeded the 5,000 limit for 320 days. Only by extremely careful operations are the persons in charge of the Omaha water works treating plant able to make water that is free from harmful organisms. In several instances this bacteria count exceeded 500,000. This is truly indication that a large amount of untreated sewage is being discharged into the river above the Omaha intake and corrective steps should be taken.

In our over-all program of abating pollution from the Missouri River, Nebraska stands ready to assume its responsible share by the construction of treating plants because programs for this have already been set up. We therefore believe that it is the responsibility of all communities that are discharging untreated wastes to assume their proportional share in order that the river comply with objectives that are needed for the general welfare of the persons and industries that are depending upon it for their supply of water. We therefore urge that the municipal officials of Sioux City, Iowa, reconsider their present stand and thereby make possible the construction of treatment facilities, effects of which will be at once realized downstream by persons in Nebraska needing this water.

At the same time this will start the antipollution control program at a point where greatest benefits will be realized because more communities and industries will benefit than from projects started downstream. It is only reasonable to start at the upstream location and clean up the river as it moves downward.

Thank you.

MR. STEIN: Thank you, Mr. Reeves.

Before you leave, let's see if there are any comments or questions.

MR. HOUSER: I would like to ask Mr. Reeves--perhaps this is not the right gentleman to ask this question, but he can refer it to somebody else--the status of the program at Omaha. Mr. Reeves, the newspaper reported that the bond issue there had been defeated. Now, as I understand, that is to be resubmitted for referendum?

MR. REEVES: I think that I ought to refer that question to Mr. Filipi here. I believe he is the person familiar with the situation at the present time.

MR. FILIPI: Mr. Chairman, for the purpose of answering the questions relating to the Omaha program, I have Mr. Fisher, who is director of Public Works. Do you want him to answer the question now, or give him the opportunity of discussing that in the presentation he will make at a later time?

MR. STEIN: Yes, I think we would do that. We would prefer to have questions of that type handled under item IV on the agenda dealing with action and programs of cities and industries concerned.

MR. FILIPI: We are ready to answer it, but we want to comply with your program.

MR. STEIN: I think if it is agreeable with you, could we hold that until that part of the presentation, Mr. Houser?

MR. HOUSER: Well, that is perfectly agreeable, Mr. Stein. I recognize that Omaha is not in the reach of the stream under consideration today. That is the reason I asked it.

MR. STEIN: That is a relevant question and certainly will be considered.

Are there any other comments?

Thank you very much, Mr. Reeves.

At this point we would like to call on Mr. Houser. Let me again emphasize that in the agenda item here, we would like to consider as much as possible sources of pollution, nature of wastes, and state program of corrective action.

Mr. Houser.

MR. HOUSER: Mr. Chairman, member conferees, and ladies and gentlemen.

My name is Paul Houser, director of Public Health Engineering, State Health Department of Iowa.

In 1923, the Iowa General Assembly enacted the first definite stream pollution control law designating the State Department of Health as the administrative agency. This law authorized the investigation of pollution and the issuing of orders for abatement thereof after a public hearing on the matter. However, it exempted from coverage the lower 5,000 feet of any stream tributary to a border stream. In 1949, the law was strengthened mainly by requiring permits for new sewer outlets and extensions to existing sewer systems, but the border stream exemption was extended for a definite two-year period. In 1951, the border stream exemption was removed so that the law for the first time covered both inland and border streams, namely, the Mississippi, Missouri, and the Big Sioux rivers in the latter category.

While the state stream pollution law did not apply to the border streams prior to 1951, the Department had called the attention of the officials of Sioux City to the need for a sewage treatment plant. During 1945, a preliminary report of the sewerage situation in Sioux City was prepared by the department to point out the necessity of planning for relief and interceptor sewer construction and future sewage treatment. This report pointed out that there were more than thirty municipal sewer outlets, plus numerous other private and industrial outlets, discharging into the Missouri River and into the tributary Perry Creek and Floyd River. It was emphasized that any work which is done should be a part of a plan contemplating the ultimate collection and treatment of all municipal sewage and industrial wastes in Sioux City. The necessity for this planning was again called to the attention of the city engineer in 1952 during the design of new sewers for an extensive residential area.

Following addition of the permit feature to the Iowa Stream and Lake Pollution Law in 1949, the City of Sioux City initiated some preliminary planning of collector sewers, in accordance with stipulations in permits issued by the department, for sewer extensions. These permits stipulated that the extension fit into a comprehensive plan for collection and treatment of all wastes originating in the city and that approval of the plans and the issuance of the permit did not constitute approval of the discharge of sewage without treatment into the Missouri River or its tributaries.

Beginning in 1950 the department participated in the cooperative state-federal study of pollution in the lower Missouri River and tributary streams conducted by the five states of South Dakota, Iowa, Nebraska, Kansas, and Missouri, and the Public Health Service. Findings were reported in "A Cooperative State-Federal Report on Water Pollution, Lower Missouri River Basin Water Pollution Investigation," October 1952.

Mr. Chairman, that report has already been entered in this record.

MR. STEIN: Thank you.

MR. HOUSER: Copies of this report were forwarded to the City of Sioux City and its principal industries with separate outlets, and to the other municipalities and industries in the Iowa portion of the basin with the recommendation that they proceed with the planning and construction of the sewage and waste treatment facilities.

As a result of this cooperative study, an informal agreement was reached in September 1953 by the five cooperating states and the Public Health Service to pursue, within the framework of its statewide program, a uniform program for abatement of pollution in the main stem of the Missouri River. The principal objective of this program is to improve the raw water quality for domestic use. Removal of settleable and floating solids is considered to be the minimum accepted treatment for municipal sewage.

During the period from August 1952 to September 1954, the department on its own initiative conducted a water pollution investigation of the Floyd River and Perry Creek in the Sioux City area, under the provisions of the Iowa Stream and Lake Pollution Law. The purpose of the investigation was to obtain more data relative to the pollution conditions of these streams and their effects in the Sioux City area than contained in the cooperative state-federal report. Some data and statements in the cooperative report were summarized and included to serve as a review of the findings and conclusions concerning pollution effects on the Missouri River. Industrial waste surveys were made of all packing plants and other major industries discharging either through separate outlets to Perry Creek, the Floyd River, the Missouri River, or to the city sewers.

In the report of this investigation it was stated that the Floyd River through Sioux City to above the packing plant area was subject to bacterial and organic pollution from city sewers and industrial outlets. Settleable solids were conducive to sludge bank development in localized areas below the outlets and floating materials and oils had created unsightly and odorous conditions. A public health hazard and nuisance condition was created under certain conditions. The Floyd River in the reach through the packing plant and stockyards area received an extremely heavy organic pollution load and must be considered an open sewer. The stream in this area flows through an industrial zone, but a residential area is located nearby and a nuisance and health hazard existed to the people of this area.

The findings of the report, as well as the status of interstate pollution which had been declared by the Public Health Service to exist below Sioux City were discussed with the city council of Sioux City on April 23, 1954. In accordance with provisions of the Iowa Stream and Lake Pollution Law, a hearing in the matter of pollution of the Missouri and Floyd Rivers and Perry Creek at Sioux City was held on October 7, 1954. The City of Sioux City and twelve industries with separate outlets received notices to appear at the hearing. In addition to testimony as to the local effects of pollution upon Sioux City, a representative of the Public Health Service testified as to the existence of interstate pollution and the reliance on the state agency for appropriate action.

On December 21, 1954, an agreement was reached by the City of Sioux City and representatives of the State Department of Health and the Public Health Service as to a reasonable schedule for planning and installation of sewage and industrial waste treatment facilities. This schedule was adopted by Resolution No. R-1907 on January 17, 1955, and is summarized as follows:

Step 1: Preliminary engineering report - to be completed on or before January 1, 1957.

Step 2: Financing program - to be completed on or before January 1, 1958.

Step 3: Preparation of detailed plans and specifications for major interceptors and treatment plant and letting of contracts - to be completed by January 1, 1959.

Following passage of this resolution, the City under date of February 11, 1955, requested a motion for continuance of the hearing, which reads as follows:

> "COMES NOW the City of Sioux City, Iowa, and moves the Commissioner to continue without date this matter for the reasons hereinafter set forth.

"1. That following the hearing held herein on Thursday, October 7, 1954, the City of Sioux City, Iowa, with the advice and guidance of representatives of the Department of Public Health has entered into an engineering agreement with an engineering firm for consultation, advice and studies to be made by said engineers of the problem out of which this matter arose, which said agreement was authorized and approved by the City Council of Sioux City, Iowa.

"2. That said engineering study and the City's plans and the time of performance thereof, have been informally approved by representatives of the Federal Government and the Iowa State Department of Health.

"3. That the correction of the matter complained of by the City of Sioux City, Iowa, and the defendants herein therefore seems to be assured within the definite foreseeable future and there is, therefore, not any reason now why a formal order should enter.

"4. That an order continuing this matter would not prejudice the Commissioner in later issuing an order pursuant to the provisions of Section 135.20 of the Code of Iowa, 1954, should such order be necessary, which necessity is not apparent at this time."

The commissioner under date of February 23, 1955, advised the city that he was continuing the hearing without date. Industries which had received notices of hearing were also so advised.

In view of the council's resolution, permits for sewer extension were issued on the basis that they fit into the over-all plan.

Progress reports filed with the department under dates of August 5, 1955, January 30, 1956, October 31, 1956, February 2, 1957, and November 4, 1957, indicated that the city was proceeding practically in accordance with the schedule.

Completion of the preliminary engineering report was delayed until the end of 1957, awaiting a decision by the city as to the type of financing program to be adopted and the necessity of revising plans for the Missouri River interceptors to meet requirements of the interstate highway system which parallels the interceptor through most of its length. Some major improvements to the sanitary sewer collection system have been completed and the city has completed or has under construction three segments of the Missouri River interceptor which underlie interchanges or are involved in other highway construction and plans for another major segment effected by the interstate highway are completed.

The City of Sioux City is presently served by a comprehensive sanitary sewer system with twenty-seven outlets to the Floyd and Missouri rivers. Similar outlets previously discharging into Perry Creek have been eliminated by interception and connections with other outlets to the Missouri River. The industrial contributors with separate outlets in this general area include Albertson and Company, Inc., Armour and Company, Swift and Company, Smith Packing Company, Raskin Packing Company, Sioux City Dressed Beef Company, Sioux City Dressed Pork Company, Meyer Packing Company, Allied Laboratories, Inc., Sioux City Stock Yards Company, and Sanitary Rendering Company. A large percentage of the industrial wastes are discharged into the concrete-paved section of the Floyd River. Flow measurements and composite sampling by the city's consulting engineers indicate a total contribution of about 500,000 persons on a population equivalent basis from both the domestic and industrial waste sources.

On March 22, 1958, representatives of the Public Health Service and the State Department of Health met with the Mayor, Council and City Manager to discuss the project and explain the necessity therefor in view of the fact that three new councilmen took office January 2, 1958.

On March 31, 1958, the City Council passed Resolution No. R-6975 from which is quoted as follows·

> "WHEREAS, the City Council of the City of Sioux City agreed by Resolution No. R-1907 on January 17, 1955, to take three steps with the ultimate single objective of reducing its share of the cause of pollution in the Missouri River at Omaha so as to meet the standard recognized as acceptable by the United States Public Health Service; and
>
> "WHEREAS, the City has completed Step No. 1 by making preliminary engineering survey to measure the sources, amount and quality of sewage flows originating in Sioux City, and by preparing preliminary design and cost estimates for collecting and central treatment of sewage, and by raising its sewer rentals to permit financing of 'construction of more urgently needed lateral sewers' and interceptors, as called for in Step No. 2: and
>
> "WHEREAS, said engineering survey has revealed that industrial wastes originating with the packing industry give rise to 77 per cent of the solids injected into the Missouri River at Sioux City, and that, as a result of said survey,

the City's consulting engineers state that elimination of said industrial wastes 'might' bring about reduction of pollution of the river at Omaha so as to meet the standard recognized as acceptable by the United States Public Health Service; and

"WHEREAS, Mr. Glen"--I will read it as written--"T. Hopkins, Regional Engineer of the United States Public Health Service and Mr. P. J. Houser, Chief Engineer of the Iowa Department of Health, stated at City Council meeting on March 22, 1958, that any reasonable modification of the three-step schedule set forth in Resolution No. R-1907 would be satisfactory under the programs of their respective agencies;"

The resolution also instructed the city manager:

a. To obtain a detailed report of evidence and engineering judgment from the city's consulting engineers with the aim of determining whether the elimination of the industrial wastes will reduce Missouri River pollution at Omaha so as to meet the standard of the Public Health Service.

b. To proceed with meeting with the packing industry to determine means of eliminating or pretreating such wastes, and preparation of a feasible schedule for implementing such determinations.

c. To construct in 1958 such necessary portions of the interceptor system effected by the interstate highway construction which would cost less to construct this year than at a later date.

The resolution further stated that the steps being taken by the city with respect to river pollution constitute a reasonable modification of the original schedule and that these steps constitute the limit of the program of the City of Sioux City at the present time.

Since this proposal of the city would be inconsistent with the objectives of the uniform state program developed in cooperation with the Public Health Service, it was deemed advisable, after consultation with the Public Health Service, to arrange a conference under the provisions of Section 8, Public Law 660, the Federal Water Pollution Control Act.

It must be recognized, however, that the city has proceeded with the installation of portions of the intercepting sewer which is required for collection and treatment of the municipal sewage.

In the meantime, the department has been holding in obeyance any action on applications for permits required under of Engineers also have certain responsibilities, certain federal responsibilities, relating to use of the river, specifically for navigation and for regulation of stream flow.

Col. Hammond, district engineer of the Corps of Engineers at Omaha, Nebraska, has designated as his representative to give us a statement today Lt. Col. Goodsell.

Colonel Goodsell.

LT. COL. GOODSELL (Corps of Engineers, Omaha, Nebraska):

Mr. Chairman, ladies and gentlemen.

I am Lt. Col. Goodsell. I am the deputy district engineer of the Corps of Engineers, U. S. Army.

My statement contains today, as Mr. Hopkins said, views of the Corps of Engineers and how its work on the river is affected by the pollution that we find in the river.

Prior to 1940, pollution of the waters of the Missouri River immediately below Sioux City was not of sufficient magnitude to warrant serious concern by the Corps of Engineers. During the past few years the population of communities along the river has increased and industrial facilities have grown. The pollution problem has increased in proportion to these growths and manifests itself in the form of untreated sewage, petroleum and chemical wastes and industrial wastes which are discharged directly into the river. Pollution affects the interests and program of the Corps of Engineers in the following ways:

It subjects Corps of Engineers construction personnel and contractor construction personnel to conditions which are detrimental to health. During the past few years the Corps of Engineers has stepped up the river and flood control construction work between Sioux City and Omaha, and it is expected that this work will be continued for several years. As the river becomes more polluted, the problem of maintaining the good health of workers on the river will become pronounced and difficult.

It subjects personnel engaged in commercial navigation to health hazards. Commercial river traffic has greatly increased into Omaha since World War II, and with the river improvements contemplated, this same service will be extended to Sioux City in the near future. The crews of the towboats are exposed to the pollution in the river twenty-four hours a day, seven days a week. The health of people living and working on the river should be protected by the treatment of sewage and industrial waste and discharging it into the river as treated waste.

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It requires that modification be made to our large dredge Lewis. The Lewis normally carries a crew of fifty-two men and is equipped for the ordinary settling and treating of water used for human consumption and personal bathing. Presently the sanitary system uses raw water. Because of the corrosive effects of chemicals in the water and the danger of health of personnel, it has become necessary and plans are under way to connect the sanitary system to the treated water system.

It has required the conversion of Corps of Engineers towing launches from raw water cooling to internal or closed cooling systems. One of the prime factors prompting this change was that foreign material in the river water clogged the cooling system and resulted in considerable out-of-service time for that type of equipment.

It has created a fire hazard. The discharge of oil and certain chemical wastes has contributed to the danger of fire on and around craft using the river. Further, it is virtually impossible to remove oil and chemicals from water by methods currently available to our river boats and dredges.

The Annual Operating Plans for the Missouri River main stem reservoirs since August 1956 have provided, on an interim emergency basis, for supplemental water releases to help alleviate serious taste and odor conditions on the Missouri River. It was agreed, however, that such supplementary releases would be made only for an interim period consistent with reasonable progress on industrial waste control and urban sewage treatment works. These supplemental releases were agreed to with the understanding that they would not be needed for a period exceeding three to five years.

As a matter of general policy, as well as in the specific case of operation of the Missouri River main stem reservoirs, the Corps of Engineers considers that low flow regulation for sewage dilution should not be used as a substitute for treatment works.

MR. STEIN: Thank you, Colonel Goodsell.

Are there any questions from the conferees?

Thank you. Before you leave, I want to emphasize one point you have made, and this is federal policy which is noncontroversial, agreed to by all the agencies, and that includes the Corps of Engineers and the Public Health Service, that by no means should increased or augmented dilution and release of water from impoundments be used as a substitute for adequate sewage treatment by municipalities and industries. I think that is clear beyond any shadow of a doubt and we all adhere to that policy.

Thank you.

We would like to proceed with the agenda. Again I would like to point out that we would like to talk now about the effects of pollution on present and potential water uses, and call on Mr. Filipi and others from Nebraska if he wishes to add something at this point.

Mr. Filipi.

MR. FILIPI: Mr. Chairman, I would like to present Mr. Glen Foster, representing the Nebraska Game, Forestation & Parks Commission, to present that phase of the subject for our state.

MR. STEIN: Thank you.

MR. GLEN R. FOSTER (Nebraska Game, Forestation & Parks Commission, Lincoln, Nebraska):

Mr. Chairman, ladies and gentlemen:

My name is Glen R. Foster, from the Nebraska State Game, Forestation & Parks Commission, representing Mr. M. O. Steen, director.

The Game, Forestation & Parks Commission is charged by law with the protection, preservation and management of all fish and wildlife within the state, and is also responsible for other outdoor recreation, including the management of recreation areas and state parks.

Since one-third of all the citizens of Nebraska reside in the fourteen counties fronting on the Missouri River, our commission is vitally concerned with the river's development and use for public fishing, hunting, trapping, and especially water sports. The 404 miles of river shoreline on the Nebraska side provide almost unlimited possibilities for all types of recreation.

The big dams upstream and stabilization of flow by Lewis and Clark Lake have improved conditions for recreation, decreased the sediment content, and improved stabilization of the shoreline. These factors have also resulted in changes in fish populations, with a trend toward increased numbers of game fishes. Abatement of pollution will speed up these changes and provide better habitat for game fishes. Pollution adversely affects the development and use of the river for recreation. Raw sewage is especially detrimental to recreational values and use of the rivers.

Outdoor recreational opportunities, especially for boating, water skiing, swimming and fishing, are urgently needed in eastern Nebraska. Nebraska is in the unenviable position of having the greater percentage of its better fishing waters located in the western half of the state, with the majority of its population in the eastern half. A few small state-owned or -controlled bodies of water in eastern Nebraska cannot take care of the recreational needs of the people. Our commission is constantly requested to open our small state lakes for motor boating and water skiing. Such areas as we now have are far too small and unsafe for such activities and are required to meet the predominant public fishing needs.

The development of large bodies of water suitable for motor boating and water skiing is extremely expensive. Locations for constructing large bodies of water for such purposes are few and far between in eastern Nebraska. On the other hand, the Missouri River already exists and development costs of recreational facilities would be comparatively low.

Our commission cannot justify the use of public funds to develop access and recreational facilities on a polluted river.

Nebraska is currently conducting a study of river frontage and access opportunities in order to improve access to the river by the public, as there is already a significant amount of recreational use of the river. Our department, however, continually receives complaints regarding pollution.

Commercial fishermen complain that the fish they catch in certain locations are unpalatable due to the taste resulting from polluted waters, and most of these complaints came from areas directly below the larger cities. Sport fishermen and boaters also send in complaints when they see and smell pollution in the river.

Abatement of pollution and development of access alone would undoubtedly double the use of the Missouri River for recreational purposes in a very short period of time. This not even contemplating additional recreational needs foreseen now as a result of increasing populations, more leisure time, and improved transportation facilities.

It is our hope that the pollution problems in the Missouri River can soon be solved, and the Game, Forestation & Parks Commission is anxious to do anything in its power to assist with this problem.

I wish to thank you for this opportunity to express our views on this pollution problem.

Thank you.

MR. STEIN: Thank you, sir. Would you just wait a moment?

Are there any comments or questions?

Thank you for your statement.

Do you have any more on the case in point, Mr. Filipi?

MR. FILIPI: Not at this time.

MR. STEIN: Thank you, Mr. Filipi.

May we call on Mr. Houser and others from Iowa to talk on the effects of pollution on present and potential water uses.

MR. HOUSER: Mr. Chairman, I would like to call at this time on Mr. Harry Harrison, who represents the State Conservation Commission of Iowa.

MR. HARRY M. HARRISON (Iowa Conservation Commission, Des Moines, Iowa.):

Mr. Chairman, members of the conference, ladies and gentlemen.

My name is Harry M. Harrison. I am a fisheries biologist, and I represent the Iowa Conservation Commission. I will now read a statement by the Iowa Conservation Commission concerning the pollution at Sioux City.

Due to the stabilization of flows and the clarification of its waters, the Missouri River is being used for recreation far beyond anything envisioned five years ago. This, of course, applies in those reaches of stream which are relatively free of pollution.

Development by the Corps of Army Engineers that are making the use of the river possible have had a major damaging effect upon the oxbow lakes in the valley. In the past, these lakes have provided almost all of the water recreation in western Iowa. The loss of these centers of recreation have increased the value of the Missouri River for pleasure purposes many fold.

In recognition of this, the Conservation Commission has set upon several projects to develop the area for recreation. Access areas are being purchased, game areas are in the process of development, and a biologist has been hired to begin August 1st to study the fishery resource.

River recreation in the zone of pollution below Sioux City is almost nonexistent. This is the result of pollutants being dumped into the river from Sioux City. Control of this contamination will increase the use of the river a great deal. Recreationists, conservationists and sportsmen in western Iowa are aware of this situation and are deeply concerned about pollution control.

The river below Sioux City is badly defiled. The stench from this contamination can be smelled long distances, and many fish caught from the area are inedible because of strong flavors imparted into their flesh by the various befouling compounds contained in the water.

Conservation officers advise that fish taken for sale or commercial purposes are frequently unmarketable because of foul taste. Because of this, commercial fishing is relatively unimportant for many miles below Sioux City. With effective pollution control, commercial fishing may increase and would become an important source of food and revenue in this section of the state.

The conservation officer stationed at Sioux City is of the opinion that hunting, fishing, boating and water skiing enthusiasts are pinning more and more hope on the river as a place for recreation. Engineering work has stabilized flows and reduced much of the silt, but industrial and domestic pollution have become more apparent. Raw sewage and industrial waste including oil, grease, chemicals and packing house wastes have rendered the river practically unusable.

He advised further that the river exudes a foul odor, that the pollutants are actually visible and that commercial fishermen's nets are filthy with all matter of waste when they are raised.

Conservation officers serving the Missouri River at areas not befouled by pollution report much use of the stream for recreation. Since stabilization of the channel, cottages are springing up, people are driving considerable distances to fish, boating and water skiing are increasing by the day. Pollution at Sioux City is destroying a segment of the Missouri for this type of recreation.

The Iowa State Conservation Commission in its endeavor and duties vested by law to increase outdoor recreation opportunities is aware of the recreational possibilities of the river. We recognize the destruction of these potentials by pollution, and we are hoping to see corrective action in the abatement of the Sioux City pollution nuisance.

Thank you.

MR. STEIN: Thank you.

Are there any comments or questions?

Mr. Houser, do you have any more to present on this?

MR. HOUSER: I have no more.

MR. STEIN: Thank you. We would like to call on Mr. Dwight Metzler of Kansas now for the effects of pollution on present and potential water uses.

Mr. Metzler.

MR. METZLER: Mr. Chairman, Dr. Zimmerer, fellow conferees, ladies and gentlemen.

The State of Kansas is concerned about the pollution of the Missouri River by municipal and industrial wastes and has been active in supporting the joint state-federal cleanup of the river. Pollution originating from upstream sources adversely affects beneficial use of the water by Kansas, particularly the cities of Atchison, Leavenworth and Kansas City, Kansas.

Sioux City is sufficiently far removed from Kansas waterworks intakes that its pollution alone would have little effect upon Kansas users. However, degradation of the Missouri River is cumulative with each city from South Dakota to the mouth contributing its portion of the pollution which makes the river an increasingly unsatisfactory source of municipal water supply.

The density of fecal organisms, as measured by the coliform test, greatly exceeds the standards set by Kansas, the U. S. Public Health Service, and most of the other states for raw water quality. Tastes and odors from enrichment of the river and industrial processes make the production of a palatable water difficult at times.

While the production of a safe water supply is accomplished at Atchison, Leavenworth and Kansas City, chlorination represents the principal line of defense against this continually increasing coliform density. Since chlorination procedures are subject to malfunction, the hazard to the health of the public drinking the water becomes much greater as the coliform density increases. While untreated wastes from St. Joseph, Missouri, constitute the primary threat to the three city water supplies mentioned, pollution from Omaha, Council Bluffs and Sioux City must be considered as important because each adds its incremental load to the total pollution.

Atchison, Leavenworth and Kansas City, Kansas, have all taken steps to abate their pollution; they are only awaiting a start on cleanup by their upstream neighbors before they place the needed works under construction.

The Kansas River and the Floyd River represent the two principal sources of tributary pollution to the Missouri River. Of these, the Kansas was started on a cleanup program in 1950, and we do have it cleaned up to the metropolitan Kansas City area.

I would like to observe one thing, if I might, Mr. Chairman, along the lines of the position which I think the city finds itself in here. I can't believe that there are many residents of this area that are interested in being known as contributing half a million population equivalent of untreated sewage to the Missouri River. You can't afford this. Not only will you be noted by your downstream neighbors as the folks who are dumping their wastes in our back yard, but you will be known by this all over the country. And as one who has had some slight experience in dealing with water pollution and watching its economic effect, I would say to you that your decision as to whether you stand still or go ahead with this program will substantially affect the growth of Sioux City for a substantial period, certainly more than a decade.

If it becomes generally known across the country that you have a major water pollution problem here, industries will become increasingly loath to locate here; and frankly, some of those that locate here will be loath to spend additional money for plant expansion. If you want documentation of this, I would refer you to Wichita and some of the other major cities which have gone through this same general situation.

Thank you very much.

MR. STEIN: Thank you, Mr. Metzler. Are there any comments or questions of Mr. Metzler?

If not, thank you again.

Mr. Smith, would you care to address yourself to this question?

MR. SMITH: Mr. Stein, members of the conference, ladies and gentlemen.

I am Jack K. Smith, executive secretary of the Missouri Water Pollution Board.

The Missouri Water Pollution Board as the official water pollution control agency of the State of Missouri is deeply concerned about pollution caused by the discharge of municipal and industrial wastes at Sioux City, Iowa. The Water Pollution Board's primary concern is the protection of the Missouri River as a source of municipal water supply for the cities of St. Joseph and Kansas City. Other water uses which are adversely affected include industrial water supplies, fish and wildlife, and recreation.

We believe that a substantial part of the high coliform content of the raw water at the St. Joseph water intake is caused by discharge of untreated municipal and industrial wastes at Sioux City, Iowa.

We are convinced that adequate treatment of all municipal and industrial wastes will afford a raw water quality for Missouri cities that will be within recognized water quality standards. The people of the State of Missouri have demonstrated a desire to treat all municipal and industrial wastes prior to discharge to the Missouri River. St. Joseph has completed an engineering study and cost estimate of the necessary interceptor sewers and treatment works. The city has filed an application for a federal grant for sewage treatment works. Local financing has not yet been arranged. The City of St. Joseph discontinued discharge of municipal garbage to the river June 1, 1957. The stockyards and meat packing industry discontinued discharge of bedding and paunch manure June 1, 1957. Engineering reports and cost estimates have been completed for Parkville, Kansas City, North Kansas City, Independence, Liberty, Jefferson City, St. Charles, and that portion of the Metropolitan St. Louis Sewer District tributary to the Missouri River. Bond elections are necessary in all of the above cities to finance treatment works. Kansas City and North Kansas City will vote prior to September 1, 1959. Liberty has scheduled an election for September 9, 1958. St. Charles plans an election this fall. The Metropolitan St. Louis Sewer District plans an election to be held this year to finance treatment works tributary to the Missouri River.

In general, Missouri municipalities and industries have made progress in pollution abatement. The next important phase of the program, financing of treatment works, will be influenced to a large extent by progress made at upstream municipalities and industries. The Water Pollution Board, therefore, is vitally interested in the program of the upstream cities because of the effect on Missouri municipalities as they approach the financing phase.

Thank you.

MR. STEIN: Thank you.

Are there any questions or comments from the conferees?

If not, we will conclude this portion of it.

MR. HOPKINS: I have a comment.

MR. STEIN: Yes.

MR. HOPKINS: I would like to point out that in his statement under item I(b) of the agenda, Mr. Kittrell included the Public Health Service considerations of the effects of pollution on present and potential water uses, so that that Public Health Service statement in this portion of the agenda has already been made.

MR. STEIN: Thank you.

I think we made considerable progress in delineating the problem and an analysis of the material to come would indicate that if we went through in a continued manner we would probably push this too late. So while we hate to impose a barbarously early lunch hour on you folks here, we think that it would be best to adjourn now because what have to be taken up this afternoon are action and programs of the cities and industries concerned, where the city representatives and industries will be given an opportunity to make statements, and expression of views by the conferees as to the adequacy and acceptability of these measures, and the conclusions of the conferees, which will cover specifically the sources causing interstate pollution, the steps necessary to abate that pollution, if such pollution is being caused, and the time schedule for abatement action, if appropriate, and then a short summary.

I think we will reconvene in one hour, at 12:15.

Again I apologize for imposing this early lunch hour on you and can only console myself with the fact that where I come from it is now 1:15 and is probably a decent lunch hour.

Thank you. This meeting is adjourned until 12:15.

(NOON RECESS)

MR. STEIN: The conference is reconvened and we will push on with the agenda.

The next item covers action and programs of cities and industries concerned.

I would like to first call on Mr. Carl and representatives from South Dakota.

Mr. Carl.

MR. CARL: Mr. Chairman, as I pointed out this morning, there are three cities in South Dakota which are contributing pollution to the interstate portion of the river under question.

The uppermost community is Yankton. Yankton retained a consulting engineering firm in January 1956. The design analysis was received in the State Health Department on July 13, 1956, and the basic engineering report in October 1956. Prior to receipt of the report, a meeting was held in the state engineer's office on April 16, 1956, with a representative of the Board of Charities and Corrections in an attempt to resolve the financial difficulties imposed as a result of the State Hospital being located near Yankton and using the Yankton sewerage system.

This situation was resolved and in 1957 the South Dakota legislature appropriated a sufficient sum of money to pay the state's share of the capital costs for sewage treatment at Yankton. Yankton has filed an application for federal aid in the amount of $105,000 and has indicated in that application that they will let contracts within 400 days after the grant award. The project has been approved for construction grant funds, and the award was made on June 24, 1958.

Vermillion is the next city down the river. Vermillion is not located directly on the Missouri River, but their untreated wastes are discharged into the Vermillion River a few miles upstream from the Missouri River. The Vermillion River is essentially dry during some portions of the year and for all practical purposes we have considered Vermillion to be on the interstate portion of the Missouri River. The University of South Dakota is located in Vermillion and discharges wastes into the municipal system.

The City of Vermillion retained a consulting engineering firm in March 1956 and their preliminary report was received by the State Health Department in December 1956. Their sewer problems are complicated as a result of a combined sewer system which is undersized, and their first effort was a bond issue on March 12, 1957, for $325,000, to provide for sewer separation. This bond issue failed. The city has now appointed a committee to explore possible aid from the University of South Dakota for financial assistance on the major capital improvements; has appropriated $378,000 from the general fund to be used for sewer construction; and voted and passed a sewer rental program on April 16, 1957. The council has not, however, put the sewer rental program into effect. The city has applied for and received a federal grant in the amount of $37,792.75. The grant award was made on March 11, 1958, and the city has indicated that contracts would be let 420 days following this action. It is our understanding that Vermillion will approach the 1959 legislative session with a request that the University of South Dakota participate in financing their fair share of these improvements.

Elk Point is our last community in the state on the interstate portion of the Missouri River. Elk Point retained a consulting engineer on September 13, 1956, and approved a bond issue on July 2, 1957. A federal construction grant was approved and a grant award made on January 31, 1958, in the amount of $27,856. As this paper is being read, sewage treatment facilities consisting of a sewage stabilization pond are under construction for our first upstream neighbor from Sioux City, a community of 1,400 population.

Mr. Chairman, that concludes my statement or the statement of our Water Pollution Committee and the State Health Department of South Dakota.

We have city officials here from both Vermillion and Yankton.

Is Mr. Jensen here?

Yes, Mr. Jim Jensen, the city manager of Yankton, is in the audience and he possibly would like to speak for Yankton at this time.

I will introduce the Vermillion people later.

MR. JAMES L. JENSEN (City Manager, Yankton, South Dakota):

I have no statement, Mr. Chairman.

MR. STEIN: Do you want to call the Vermillion people now?

MR. CARL: Yes.

Yankton doesn't care to add to the comments we have made.

From Vermillion we have Mr. Bob Walz, the city auditor; Mr. Wayne Gutzman, a councilman; Mr. John Barstow, another councilman who is also chairman of the Health and Sanitation Committee. I think Mr. Barstow is the spokesman for that group.

Do you have something you would like to add at this time?

MR. JOHN T. BARSTOW (Health and Sanitation Committee, Vermillion, South Dakota):

My name is John Barstow; I am chairman of the Health and Sanitation Committee of the Council of Vermillion, South Dakota.

I have very little to add except to say that this project of storm and sanitary sewer separation is now under way. The contract engineers are on the job at the present time working on that, and we hope to have that completed by the time the snow flies. In fact, it will necessarily have to be done by that time.

Also that we have under study at the present time a sewer rental problem or project and we hope that in the future that, too, will be put into operation.

That is all that I have to say.

MR. STEIN: Thank you.

Do the conferees have any comments or questions?

MR. CARL: There is one other representative here I introduced earlier this morning, a man representing the acting director of our Fish, Game and Parks Department, a member of the Water Pollution Committee. That is Mr. Les Berner, who is chief of the Game Division of our Department of Game, Fish and Parks.

Les, do you have something you would like to add at this time?

MR. LESTER M. BERNER (South Dakota Water Pollution Committee, Pierre, South Dakota): No statement.

MR. CARL: That takes care of our representatives.

MR. STEIN: Thank you.

Are there any questions on the statements of Mr. Carl or any comments?

We would particularly like, at least, the tentative views of the schedules proposed and the work done, whether this is satisfactory to the other conferees at this stage, and I think we can all take cognizance of the significant progress being made by the South Dakota communities in moving ahead in this direction, and the summary will show that.

I think some tentative schedules and dates were set up, proposed schedules and dates were set up, and if there are any comments we would like to hear them.

Are there any comments?

Mr. Hopkins.

MR. HOPKINS: The date at Yankton, 400 days following approval of the federal grant offer, would make contract for construction approximately September 1 of '59.

MR. CARL: That is right.

MR. HOPKINS: And likewise at Vermillion, approximately July 1, 1959. And I would like to point out that that is certainly in reasonable conformity with the program as originally conceived by the five states and the Public Health Service at least five years ago.

MR. STEIN: Thank you, Mr. Hopkins.

Well, if there are no further questions or comments on Mr. Carl's statement, we would now like to call on Mr. Filipi and representatives from Nebraska.

Mr. Filipi.

MR. FILIPI: Mr. Chairman, the Department of Health has held conferences with the municipal officials in South Sioux City, Nebraska, and with Dakota City, Nebraska. It has been pointed out to this conference that South Sioux City has a population of about 3,500 people, with no industrial wastes; Dakota City has a population of approximately 400 people.

When considering the population of these two polluters, the total, about 3,900, when considered in proportion to the pollution load from Sioux City, Iowa, approximately 570,000 people, you will find that the pollution load from South Sioux City and Dakota City is 0.7 of one per cent. Therefore, in our conferences with the municipal officials of both of these communities they are cognizant that it is their moral responsibility for treating the sewage that they are now discharging, but they have stated that they see no reason for treating the sewage from 3,500 people and approximately 400 people when a community of 70,000 across and upstream is not showing any action toward the program. With this I can't help but agree.

But I have the assurance from both of these communities that when a program is started on the Missouri River that they will be in line in progress with the rest of the programs and plans and construction target dates that these other communities are working on.

It is with interest that I report that Decatur, Nebraska, is the only community on the Missouri River that is now treating their sewage. They have been treating it for eighteen years. Perhaps it sounds funny, the little town of Decatur, here they have been treating their sewage all this time, not having any concern of what is going upstream or downstream, but they are giving secondary treatment to the sewage from that little community.

Blair, Nebraska, downstream, has a plant now under construction. It is our opinion that the plant will be finished sometime the latter part of the fall or early next spring.

Mr. George Fisher of Omaha is here and I would like to have him report on the progress that is being made in Omaha in living up to their portion of the program for the Missouri River. Mr. Fisher.

Excuse me, do you have any questions?

MR. STEIN: Yes, before Mr. Fisher comes up, are there any questions or comments on Mr. Filipi's statement?

MR. CARL: The interstate portion of the Missouri River is considered to start at Gavins Point Dam and isn't it true, Mr. Filipi, that the Corps of Engineers has installed primary sewage treatment within the dams for visitors and crew that work there?

MR. FILIPI: That is right.

MR. CARL: I just wanted that to be made a part of the record.

MR. FILIPI: And there is a village being planned on the Nebraska side of the river, and the consulting engineer here has already been in communication with me relative to the treatment that is to be given to the sewage from the village that is being planned there right now.

MR. CARL: All right, thanks.

MR. FILIPI: So that the waters going into the dam will likewise be treated.

MR. HOUSER: I would like to ask one question.

You say you have assurances from South Sioux City and Dakota City that they will proceed in line with other cities along the river, particularly Sioux City. Are those assurances in the form of any official documents, such as a resolution of the city council?

MR. FILIPI: I did not ask that of them at this time.

MR. HOUSER: Do you feel that such assurances can be obtained in the form of a resolution?

MR. FILIPI: I am quite confident that a resolution such as that could be made in writing, if necessary.

MR. STEIN: Thank you.

Do you have any comments or questions?

Well, I would like to make one short comment here before we go on, and I think this will govern all aspects of what we do here and what we are doing in other parts of the country. And that is while we very much sympathize with smaller communities such as South Sioux City and Dakota City, if these folks put in what we call in the law the minimal amount of pollution and they are contributing to pollution, they are regarded as being jointly and severally liable with the other communities on the stream in contributing to this pollution; and if that is so, there is more than a moral obligation if the determination is made that they are contributing to interstate pollution. They will be under an obligation to clean up with the rest of their neighbors.

I think this point has come up many times in administrative and in legal decisions in the federal and state courts throughout the country, and I know of no case where there is any deviation from that principle.

May we hear Mr. Fisher now. Mr. Fisher.

MR. GEORGE J. FISHER (Public Works, Omaha, Nebraska):

Mr. Chairman, conferees, ladies and gentlemen.

I have been requested by the Honorable Mayor John Rosenblatt of the City of Omaha to appear before this meeting to report on the views of the City of Omaha with respect to the obligation of all communities along the Missouri River to abate the pollution of the river caused by the discharge of untreated sewage. I am also to give a progress report on the actions of the City of Omaha since it assumed full responsibility for its obligation to remove its portion of untreated sewage from the river.

I believe that I state the feeling of the governing body of the City of Omaha and a majority of its citizens when I say that the wonderful big Missouri River should not be polluted by anybody including ourselves. Up near the north end of the city, the Metropolitan Utilities District pumps water from the river, treats it and distributes it throughout the city. That is our drinking water and we all want it as clean as possible. No community north of us should dump untreated sewage into this river so as to create any possibility of contamination of the water we pump, treat and distribute to the citizens of Omaha. By the same token, the City of Omaha should not pollute the river so that polluted water has to be pumped, treated and distributed to the citizens of other cities downstream from Omaha.

It is just as simple as that: No person nor community should pollute a water facility with such traffic and recreational possibilities as are possible with the Missouri River.

At this point it would be well to point out that Omaha has at least one sewage treatment plant which treats approximately one-third of the area of the City of Omaha and even though the effluent flows via the Papio Creek into the Missouri River it still represents treatment of the sewage of approximately one-third of the city's total area. In this respect Omaha is not usually given credit for at least partially treating its sewage. This is possibly due to the fact that discharge into side streams such as the Papio does not commonly come under studies of the very large rivers. Be this as it may, however, Omaha should be considered in its proper light in this regard, since very few if any other main stem Missouri River cities can point to even one-third of their area as being treated.

Operating under Public Law 660 of the 84th Congress, known as the Federal Water Pollution Control Act, a conference on the main stem of the Missouri River in the Omaha area was held in Omaha in June of 1957. This covered the reach of the stream beginning north of Omaha and below Nebraska City, Nebraska.

Representatives of water pollution control agencies in Nebraska, Iowa, Missouri, Kansas and the U. S. Public Health Service attended the conference. At that time it was mutually agreed that contract awards for the various phases of the collection and treatment of the sewage and wastes from the City of Omaha would be made by the following dates:

1. Papillion Creek Plant Improvements, 1/1/58

2. North Omaha Interceptor Sewers, 1/1/59

3. North Omaha Sewage Treatment Plant, 1/1/59

4. South Omaha Interceptors and South Omaha Treatment Plant, 1/1/60

The improvement to the Papillion Creek Sewage Treatment Plant is now under construction by virtue of a contract let by the City of Omaha earlier this year. To add a little there, incidentally, that job we consider will be finished by December 1 of 1959. We now have the initial engineering report on the North Omaha Interceptor Sewer as submitted by Henningson, Durham and Richardson, consulting engineers, on April 2, 1958. I have given a copy to be included in the official minutes. This north interceptor will carry all the sewage from the north part of town past the water intake of the City of Council Bluffs, Iowa, and dump this sewage into the river at about Grace Street. The rest of the over-all antipollution program of the City of Omaha consists of continuing this interceptor sewer on down the river to approximately Monroe Street. The south interceptor (from Grace Street south) would intercept all of the sewers and carry all of the sewage to a new plant on the bank of the river near Monroe Street. The north and south interceptor sewers would collect the sewage from at least twenty-three sizeable sewers which now empty direct into the Missouri River and thus provide better water for the cities below it which get their drinking water from the river. Such action will also create a very nice and useful recreational facility for the citizens of Omaha. They will not have to row their boats or run motor boats through a bunch of sewage in the river but rather through clean, unpolluted water. By this I mean unpolluted water as far as Omaha is concerned. Let us hope that it will be unpolluted also as far as cities upstream from Omaha are concerned also.

As all of you undoubtedly know, the Honorable Mayor Rosenblatt appointed three hundred citizens of Omaha to devise a plan of long-range improvements for the city. This plan was known as the Omaha Plan, it amounted to about $168,000 total, and was submitted to the voters on June 17, 1958. One of the major portions of this plan was a sewer and sanitation section calling for an expenditure of over twenty million dollars. This twenty million dollars was to be financed by general obligation bonds, revenue bonds, grants from the federal government, income from a sewer use fee and from previously approved bonds. The sewers and sanitation section of the Omaha Plan contained definite provisions for the construction of the North Interceptor Sewer, the South Interceptor Sewer and the necessary sewage treatment facilities.

Here is the sad part. The voters of Omaha decided that they did not want this bond issue approved and voted it down by more than a two-to-one majority.

Now it becomes the obligation of the City of Omaha to figure out other ways and means of getting this improvement built so as to remove the pollution of the Missouri River. We intend to go before the voters again in November in an endeavor to get them to approve sufficient bonds for at least the construction of the North Interceptor Sewer which will provide better and safer water for Council Bluffs, Iowa.

A little addition there. In addition to the bonds for this north interceptor, we are going to ask them for $600,000 in bonds to work up the plans and specifications for the south interceptor and the sewage treatment plants. That will make a total bond for this treatment of about $3,100,000.

Then later we will have to try to get another bond issue approved in order to build the south interceptor and the sewage treatment plant. It is the hope of the governing body of the City of Omaha, and I am sure by a great many of the citizens, that we can clean up our mess in the river and thus make the whole area a better place in which to live.

I wish to thank you very much for this opportunity to speak before you and to present our views and programs on the abatement of the pollution of the Missouri River.

Thank you.

MR. STEIN: Thank you, Mr. Fisher. Will you just wait a moment.

First we would like the report on interceptor sewers and sewage disposal, west bank of Missouri River, City of Omaha, prepared by Henningson, Durham and Richardson, dated April 2, 1958, to appear in the record as Nebraska Exhibit No. 1.

(NEBRASKA EXHIBIT NO. 1 MARKED FOR IDENTIFICATION.)

MR. STEIN: And just so the record can show this, and if I am incorrect check me, the reference to Papio Creek should be Papillion Creek, in order to have the nomenclature consistent in all the conferences.

MR. FISHER: That is correct.

MR. STEIN: Thank you.

Are there any questions or comments of Mr. Fisher?

MR. HOUSER: I would like to make a comment, if I may.

MR. STEIN: Mr. Houser.

MR. HOUSER: Mr. Fisher, they are very much concerned in Iowa about the so-called Minnelusa sewer outlet that discharged above the Council Bluffs water intake at the present time. And I think it might be proper, Mr. Chairman, for the record to show that at the Omaha conference the Department of Health of Iowa as part of the statement suggested that that outlet be eliminated. I see by Mr. Fisher's report here that the north interceptor sewer will eliminate that use as a sewer outlet, and that will be submitted to the voters in November.

MR FISHER: That is correct.

MR. HOUSER: For approval of at least that portion of it. That will take the sewage water down below the Council Bluffs intake.

MR. FISHER: Here is the Council Bluffs interceptor here. This north interceptor will bring it down here (indicating). It is approximately a mile below the Council Bluffs intake. The Minnelusa sewer right here (indicating) will be entirely eliminated.

MR. HOUSER: That is definite?

MR. FISHER: Yes.

MR. HOUSER: Well, I just wanted the record to show that we appreciate the action taken by the City of Omaha in eliminating that potential hazard to the Council Bluffs water supply.

MR. STEIN: Are there any other comments?

Mr. Smith.

MR. SMITH: I would like to ask Mr. Fisher if they have any plans for the second election following the November election which would include the treatment?

MR. FISHER: November 1960. The bond issue necessary at that second election will be about 10.5 or 11 million dollars.

MR. SMITH: The one in 1960?

MR. FISHER: Yes.

MR. STEIN: Mr. Smith, do you have any further comments or questions?

MR. SMITH: No.

MR. STEIN: Mr. Carl.

MR. CARL: I have none.

MR. STEIN: Are there any other?

MR. METZLER: I would like to ask a question or two.

This bond election and the part which Omaha plays in being one of the key upstream cities, have you given thought to planning this program in two phases, as you have indicated, but getting the financing at one time? I assume on the basis of your report here, cutting the dog's tail off in two chunks is less painful than whacking it all off in one, but I wonder if it wouldn't provide considerable stimulation for downstream cities? I am thinking particularly about Atchison, Leavenworth and Kansas City, Kansas, all of which are under commitment at the moment to place under contract a year before you vote treatment works. I can see this having a definite affect on the downstream progress.

MR. FISHER: Mr. Metzler, that is what we tried in June. We tried to get a bond issue passed. The total expenditure was over 20 million dollars and involved a little over 17 million dollars in bonds. The rest of the money we had in sewer use fee and already approved bonds and grants from the federal government which we hope to get. But the voters turned it down, oh, two to one at least. So now we are trying to go back to them with a minimum bond issue that we can get at least one of the worst pollution problems cleaned up, that is to help get our sewage past Council Bluffs at least; and then when we get that done or when we get these plans and specifications done we will go back to them with the next one.

Well, it is a feeling that we won't have too much trouble getting those bond issues passed, but one of the main things we are relying on down there is the fact that the bond issue that we want to give the voters this November will not increase the tax rate for bonds or to pay off the bonds. I can't think of the right word.

MR. STEIN: Service.

MR. FISHER: We now in our ad valorem taxes have five mills for the paying off of bonds, and in 1961 that will drop, if we don't issue any more bonds, one mill; and we want to make this bond issue in November practically equivalent to that one mill, so we don't increase it but neither will we decrease it.

MR. METZLER: May I observe that in other cities and especially in another city of comparable size you will recall that there was a similar defeat by a similar margin and about five months later there was an approval with an overwhelming majority. I don't think that a single bond issue defeated necessarily is a long-term defeat. It just means that the voters just didn't understand the significance fully.

MR. FISHER: Well, in this other city, Mr. Metzler, the voters not only didn't understand, but your honorable State Health Department put some quietus to us that had a lot of effect on the voters.

MR. METZLER: That is true.

MR. FISHER: You turned down, or I mean you would not approve any sewer plans that would add to the system and add more sewage to the present treatment plant.

MR. METZLER: That is correct.

MR. FISHER: And that, of course, stopped a considerable amount of residential and other developments in the city and left some very unhealthful conditions that soon sold the citizens of Wichita that they had better pass the bond issue; and they did, six to one.

MR. METZLER: A very admirable speech, Mr. Fisher.

MR. FISHER: Thank you.

MR. STEIN: Mr. Hopkins.

MR. HOPKINS: Mr. Fisher, detailed plans and specifications are now in progress for the north interceptor? Is that right?

MR. FISHER: No, not the detailed plans and specifications. We can't do that until we find out if the voters will approve the 3.1 million bond issue in November. I wanted to get that straight. The total issue is about 8.4 million, but that is for some other sewers along with the north interceptor. But we cannot enter into any contract for the final plans and specifications for the north interceptor until we are sure we have authorization for the money.

MR. HOPKINS: Then what delay after the November election do you visualize for completion of detailed planning and the earliest date that you could award a contract under the north interceptor?

MR. FISHER: The plans for this north interceptor are not complicated. There are three or four structures that have to be designed, but they are not overly complicated either; and we feel that we can get the plans ready and the job under contract by June 1 of '59.

MR. HOPKINS: June 1 of '59, then, you visualize as your contract date for the north Omaha interceptor?

MR. FISHER: That is right.

MR. HOPKINS: I believe the city has committed itself to an election for the part of the project that you described in November of this year?

MR. FISHER: I will have to define the word "commitment." We are committed as far as the staff and the Mayor is concerned. The council has not yet approved it.

MR. HOPKINS: Then you visualize, the city visualizes, as the next election November two years hence?

MR. FISHER: That is correct.

MR. HOPKINS: Am I not correct in my belief that the city recognizes that while that is their plan that there is no reason that the later financing cannot be handled through a special election if pressures require that action?

MR. FISHER: A special election can always be held if conditions require.

And one other thing I wish to point out, and that is that by November of 1960, when we ask for this other bond issue, the complete plans and specifications for the remaining part of this system will have been done, so we can go into a contract immediately as soon as they authorize the bonds. See, we are asking for $600,000 in this November bond issue for the plans and specifications for the rest of it, so that it will be all ready to go if they authorize the bonds.

MR. HOPKINS: So the contract dates that you now visualize, then, are the north interceptor June '59, the total job approximately January '61?

MR. FISHER: That is correct.

MR. HOPKINS: That is all.

MR. STEIN: Thank you, Mr. Fisher.

Are there any other comments or questions?

Thank you for a very excellent statement.

May we move on to--

MR. FILIPI: Mr. Stein.

MR. STEIN: Yes, Mr. Filipi.

MR. FILIPI: I have Mr. Paul Bolton, who is the representative of the consulting engineer, who has been making a study and might have a progress report on what industry is doing in this program.

MR. STEIN: Yes, we would be happy to hear that.

Mr. Bolton?

MR. PAUL BOLTON (Henningson, Durham & Richardson):

Mr. Chairman, conferees, ladies and gentlemen.

My name is Paul Bolton. I am a sanitary engineer employed by the consulting engineers hired by the City of Omaha to make the study on the requirements for treatment of the sewage and wastes on the watershed discharging directly to the Missouri River. Mr. Filipi has asked me to give a brief report on our work with the industries in Omaha as a result of this study.

About eight or nine months ago we were in a position to start an intensive study with the major contributors to our sewers. And I wish to point out there that being located like we are, in the heart of the agriculture center, a large part of our prosperity in Omaha is due to food processing activities, which are accompanied in most instances with quite a generous quantity or volume of wastes and types of sewage to the sewers. I would like to bring that out because we do enjoy a very large segment of our prosperity from the food processers.

In these studies, as soon as we were able to contact the larger industries, they immediately started their program of in-plant control insofar as their studies are concerned. They have cooperated with us in our study for the city completely and have assisted us in arriving at the design criteria necessary on their future basis.

I might say that one grease basin of one of the large industries has gone into effect since the study started, and of course that could only have been done if they had not planned prior to that. Most of them are involved in their studies of reducing their organic losses and their suspended solids content and the volume of their sewage to the sewers at this time.

After they have had a reasonable period of time we expect to go in and remeasure the sewage and wastes to see what comparison. we can make of their cleanup program to what we have already studied.

I believe that is all, Mr. Chairman.

MR. STEIN: Thank you Mr. Bolton.

Are there any comments or questions on Mr. Bolton's statement?

If not, thank you very much.

MR. FILIPI: That is all.

MR. STEIN: Well, let us move on to Mr. Houser and representatives from Iowa. Mr. Houser.

MR. HOUSER: Mr. Chairman, I would like to call on Mr. GeorgeDavis, who is representing the City of Sioux City.

MR. GEORGE DAVIS (Legal Counsel for the City of Sioux City, Sioux City, Iowa):

Mr. Chairman, my name is George Davis. I am legal counsel for the City of Sioux City in this matter.

As far as what the city has done, Mr. Houser reported thoroughly on that this morning, placing, apparently, in the record a copy of the engineering report that we have. So all that I can do here today is to explain the city's present position to these conferees.

This position is as expressed in the Resolution R-6975, a portion or a great portion of which was read to you by Mr. Houser and all of which I assume will be in your record. Our position is, therefore, that as stated in that resolution. We are not going any further than stated in it, and our reasons for it are two.

Primarily, we do not agree with the basic assumption upon which this conference has proceeded, that is that Sioux City is polluting the river to an extent to endanger anyone's health. We do not agree with that.

Secondly, we are stopping where we are at this time for the reason that to proceed any further would not be economically feasible, in our opinion, and within the terms of the Act under which you are proceeding.

If I may reiterate, we do not agree with the assumption with which you started this conference, that we are polluting the river. We cannot proceed any further; in any event it is our opinion that it is not economically feasible so to do.

That is all I have.

MR. STEIN: Mr. Davis, I would like to correct the record in one respect. I think the Act provides that if pollution endangers health or welfare of persons in another state, not just health.

MR. DAVIS: I cannot hear you, Mr. Stein.

MR. STEIN: Not just health.

MR. DAVIS: Yes, I understand.

MR. STEIN: I think you do have another point and I don't think we have any assumptions yet. We do have a--this conference was requested by the health officer of Iowa. Under the law, we were obliged and are obliged to call the conference. In preparation for this conference the Public Health Service, in conjunction with the states, prepared a report. That report indicated, as I think we all heard, that there was pollution of the river within the terms of the Act. Now, I think that is all that has been presented so far. In the next stage or the next item on the agenda, the conferees will be given an opportunity to see if they are in agreement with the conclusions and findings of that report, whether that is consistent with their own observations or consistent with their own statements.

Before I would--

MR. DAVIS: Mr. Stein, whom do you mean by conferees?

MR. STEIN: The conferees are the folks sitting up here. The law is explicit on that. This is a conference between the--

MR. DAVIS: May I say now we disagree?

MR. STEIN: Yes. Before we throw this open to specific questions, other than just the bare statement of disagreement, do you wish to expand that by giving reasons or indications of why you disagree?

MR. DAVIS: Not at this time nor in this forum. If at such time the health service of the state or the government presents proof through sworn testimony and evidence subject to cross-examination and rebuttal and under rules of evidence, at that time we will be prepared to present our evidence in rebuttal to it. But we do not desire to present anything here in this forum because I am proceeding, and have for several weeks, under the assumption that the matter of the pollution has already been established in your minds, at least, as more or less a formal matter, as it was stated in the first letter to me that I could not rebut through evidence. But at the proper time when the, shall we say, prosecution's side is subject to rules of evidence, we can cross-examine, and so forth, we are eager to present our evidence in rebuttal to it.

As for now, we are disagreeing.

MR. STEIN: I appreciate your position fully. But let me indicate to you what we think the facts are here in running this procedure. We do not have preconceived notions about the state of the river. We do have this report; we do have statements of the other state agencies concerned. Now, in the absence of contrary evidence presented in the spirit of a conference, where we want mutual accommodation on both sides and where we would want to get together and discuss this thing, I think, if you do have some evidence of such indications, we may be impeded in the work of arriving at an accommodation. I say to you in all fairness, we do not measure our success in this program by the court cases we bring and the legal regulatory actions we bring. We measure our success by the lack of those and the cleaning up of rivers without bringing these cases.

Now, the basis we operate on is to try to get full cooperation from the industries, the cities, and the states and the Public Health Service and having full disclosure of all information. I might say that we have had a variety of conferences throughout the country and this is the first time that there has not been a full disclosure on all sides, from industries, cities, states, and the federal government.

Now, I think that what you may be referring to is a letter which Mr. Hopkins sent to you on the formality procedure. I think Mr. Hopkins --and we should let him speak for himself--was possibly referring to the meeting that the states in this area had before, but Mr. Hopkins also sent a telegram indicating to you that the conference would be happy to receive all your views and any evidence you wish to present.

MR. DAVIS: Mr. Stein, I beg your pardon. The first statement which you started with was the fact that pollution was open to discussion here. Is that correct?

MR. STEIN: Yes, that is correct.

MR. DAVIS: In Mr. Hopkins' letter to me under date of June 17, 1958, and I am reading it verbatim, he said:

> "The fact that interstate pollution, as defined in Public Law 660, does exist below Sioux City, has been agreed to in writing by each of the five State Health Departments and the Public Health Service. This part of the conference will thus be a formality, consisting of presentations by the Public Health Service and each of the five States outlining conclusions drawn from previous studies and voicing their agreement."

Now, that is what I referred to. I am advised a month before the hearing that the conferees have already agreed that a state of pollution exists and that at this conference they will again voice their agreement on it. So to make my position clear, since that decision has been made before this conference I am not prepared to, nor would I in this forum, offer to introduce any evidence in rebuttal of it.

MR. STEIN: Let me again make this very clear. No conclusion has been made before this conference. Obviously, in the carrying out--

MR. DAVIS: Well, then, is Mr. Hopkins in error?

MR. STEIN: Just one moment. No conclusion--I think there may be a question of misinterpretation. I think the states and the federal government in carrying out their statutory responsibilities have obviously gotten together on this problem many, many times in the past. As a matter of fact, I think it is axiomatic with the policy in the law where we recognize the primary rights and responsibilities of the states that a conference of this sort is not called unless and until the states have had an opportunity to discuss this and have tried under their own laws and regulations and procedures to deal with the problem. So obviously in carrying out their job that has been discussed. But when the conference was called, the states were given an opportunity to designate conferees. When they come to this conference they are charged with making conclusions and recommendations precisely on the question of occurrence of pollution, and that is why we are here today.

Now, I think we should call on Mr. Hopkins to talk to that.

MR. DAVIS: Perhaps I might avoid that by stating, I think, Mr. Stein, that you and I understand each other. You are here today, you say that a condition of pollution does exist.

MR. STEIN: We haven't said that yet.

MR. DAVIS: Well, I understood from Mr. Hopkins' letter that you were in agreement on it.

MR. HOPKINS: May I--

MR. DAVIS: In any event, if you do say it, we say that it does not exist. That is the issue that is between us. And as far as my presenting evidence is concerned, and I reiterate once more, when the proper time comes we shall be happy to do so.

MR. HOPKINS: I would like to make a statement here.

The paragraph Mr. Davis read was from a letter that I wrote him in reply to an inquiry of June 12. The paragraph that he--the letter discussed several portions of a conference and the paragraph he read stated, quote, "this part of the conference will thus be a formality." I believe Mr. Davis remembers that this same information was given in the hearing at Des Moines several years ago, wherein the record was quite clear, of the correspondence between the regional office of the Public Health Service, the states in which the pollution originated, and the downstream states. I had reference to that type of correspondence and communications that was a part of record and with which Mr. Davis was familiar. I make no apologies for the statement. It was a true one, but it did qualify it to this particular part of the conference.

After observing a newspaper article which indicated that testimony on the part of the city would not be permitted, a telegram was sent to Mr. Davis under date of July 22, only two days ago, which I believe did set the record straight. I emphasize "only two days ago."

MR. DAVIS: Yes, thank you. Obviously we couldn't prepare ourselves. But I was also advised by Mr. Hopkins that a conference does not involve sworn testimony and cross-examination as such is not in order. In other words, I am under the assumption, which I think is correct, I could not do so.

I would like to ask you a question now, Mr. Stein.

MR. HOPKINS: Could I--

MR. DAVIS: Are you going to make a finding one way or the other for the first time today on the question of pollution based on what you heard this morning?

MR. STEIN: Let me say, we are not going to make any finding and I think the law is clear on that. What the conferees are going to do is come to certain conclusions and recommendations.

Now, they will make these conclusions and recommendations on their past experiences and on what they heard today. Under the law this conference is not set up as a jury panel of people who are totally unfamiliar with the problem. It has been set up by the Congress as a panel of experts to come up with conclusions and recommendations. I think we should call on Mr. Hopkins again, but first I would like to point out something I read at the beginning with reference to the statement made in the Supreme Court after that New York Harbor case where they said, and I quote, if I may:

> "We cannot withhold the suggestion, inspired by the consideration of this case, that the grave problem of sewage disposal presented by the large and growing populations living on the shores of New York Bay is one more likely to be wisely solved by co-operative study and by conference and mutual concession on the part of the representatives of the states so vitally interested in it than by proceedings in any court however constituted."

Now, we have a responsibility to administer the federal law. The federal law was designed to put this statement and others of the Supreme Court in operation. Now, we believe that the conference is the place to have all parties come in, give all their evidence. This is the proper way to do it, we think, and that is what the Congress thought. And this was--

MR. DAVIS: Give all their evidence?

MR. STEIN: Pardon?

MR. DAVIS: What do you mean by "evidence"?

MR. STEIN: I mean the reasons for your beliefs, precisely as the reasons for the beliefs that certain conditions existed were given by the conferees here and the representatives of the Public Health Service. I think if you will look at the record of the legislation in the Congress, this provision was a bi-partisan thing which went through without any opposition and it was thoroughly agreed that the complex interstate problems of pollution could best be handled by our coming forward at a conference such as this and making a full disclosure of our beliefs and our reasons therefor. And that is what we are trying to do.

I can't help but say again that we regard this as the proper place for such information to come forth.

MR. DAVIS: Well, I cannot agree with that, of course. I certainly wouldn't feel that if I couldn't, for example, cross-examine your witnesses or if they were not subject to any rules of evidence at all, that it would be of any avail to me to go ahead and put--give you the reasons, and so forth, and try the case here. Now, certainly this conference idea is a good one if we are agreed that the pollution exists. Then we will try to work it out as seems to be what was started down at the start of the hearing. But that is not true now. You say we are polluting; we say we are not. Therefore, it seems to me that we are at an issue here that now will have to be resolved in some other manner.

MR. STEIN: Yes--

MR. DAVIS: Now, I would like to say this. I am well familiar with the quotation you have read concerning conferences. Of course there can be differences of opinion as to how effective they are. Frankly, sitting here all day and listening to this, it would seem to me that Sioux City right now is just as far along as any of these other communities, except perhaps Decatur, because four years ago Omaha was dumping raw sewage six miles above the Council Bluffs intake. We are a hundred-some miles up from it and they are still doing it. Now, whether the conference is going to be effective or not, I don't know, but certainly as far as we are concerned we want you to prove to us that we are endangering anyone's health and welfare.

MR. STEIN: Let me make one thing clear--

MR. DAVIS: By factual evidence.

MR. STEIN: This conference, as I indicated, is a conference of the Public Health Service and the states. The law provides that the states may bring whomever they wish to the conference. The State of Iowa has invited you as a participant in this conference to aid the states and the Public Health Service in coming to certain conclusions and recommendations, and for that reason obviously the question of cross-examination or examination of witnesses would not seem to be appropriate. I think our legislative history and our law is very clear.

May we call on Mr. Hopkins now.

MR. HOPKINS: Yes. Mr. Davis read a paragraph of our exchange of correspondence, then after his remark on cross-examination I think we should also read the preceding paragraph.

> "The conference does not involve sworn testimony, and cross-examination, as such, is not in order. However, it is the purpose of the conference to reach full and complete understanding, so please be assured that every effort will be made to answer pertinent questions that you may have."

MR. DAVIS: All right, I think we are at a complete and full understanding now.

MR. HOPKINS: Yes, sir.

MR. DAVIS: You say we are polluting; I say we are not. So perhaps I have speeded up the processes here today. We understand each other.

Any other questions?

MR. STEIN: If you don't mind, we would like to add a little bit. I would like to amend that slightly. The report so far said there were conditions of pollution and gave the reasons for believing that--interstate pollution subject to abatement under the Act. As far as I understand the Sioux City position, you say you are not polluting but you have assigned no reasons for your belief. And with that, I think, we understand each other. That is what has happened here today.

MR. DAVIS: Yes. And the reason that I am not prepared to present those reasons is I was told that this was a mere formality, this portion of it; so we are right back where we started.

MR. STEIN: Well, I don't know, I think the record is clear on that.

Do you have any questions, Mr. Houser? Or do you want to wait? We had better start at the other end on this.

Do you have any questions or comments, Mr. Filipi?

MR. FILIPI: I am concerned. The statement is made that they are not endangering health. Therefore I am concerned. Now, is it up to us to present proof that the health and welfare of the people is being endangered? If I am out of order, Mr. Chairman, straighten me out. What proof do we have to present? Do we have to have an epidemic involving the loss of health and life to bring this to a conclusion, when we have thousands of similar situations on record now where the water quality of the stream, both at the outfall and many miles downstream, indicate bacterial loading, chemical characteristics, and other details which have been accepted over and over again as evidence of contamination and pollution? I am concerned about safeguarding the health and welfare of the people in Nebraska, now, who are dependent upon this water and, in short, trying to figure out what we have to do now because we have been taking all steps of protecting our people against this water to the extent of spending several hundred thousand dollars in one of our treating plants to be able to take care of this water and the failure of any one of those pieces of equipment will subject this population of the entire City of Omaha, three-hundred-some thousand persons, to raw sewage for drinking purposes, with the idea there is no other source that can be substituted.

MR. DAVIS: Is the water impure now?

MR. FILIPI: Yes.

MR. DAVIS: Have you had any epidemics based on that?

MR. FILIPI: We have had epidemics which are associated with the filth borne downstream; I am referring to the infectious hepatitis that went right down the river for us.

MR. DAVIS: Did that correlate with anything in Sioux City or South Sioux City?

MR. FILIPI: Yes, it did. It is my understanding that Sioux City went through that epidemic and it went to Omaha and went downstream.

MR. DAVIS: There you are. I have no knowledge of that and I am afraid you are under a misapprehension. I will answer your question if it is addressed to me. The law provides certain procedures that are very speedy in this courtroom or in the one across the street, where this matter can be threshed out as to whether or not we are polluting and certainly can be disposed of in either court or either supreme court long before you get the bond issue up, let alone pass it, in Omaha. If that date I heard of November 1960 is correct, I will assure you that the matter can be disposed of in a proper, orderly, legal fashion.

MR. STEIN: Do you have any more comments or questions, Mr. Filipi?

Maybe we can call on Mr. Metzler.

Am I to understand, you asked Mr. Filipi some detailed questions and he answered them. Would you be amenable to having these other folks ask you the same kind of question?

MR. DAVIS: Surely. If I can answer them.

MR. STEIN: Mr. Metzler.

MR. METZLER: Mr. Davis, first let me say that this is rather a surprise to me. It seems to me that the statement that you are making for your employers is so reckless and irresponsible as to make me wonder if they really understand the significance of the action which they seem embarked upon.

Have they sat down with Mr. Houser and gone over the technical facts in the case so that they understand the effect of five or six hundred thousand population equivalent waste being run through your own city and into the Missouri River?

MR. DAVIS: To my personal knowledge, yes, many times in the past four years.

MR. METZLER: They are convinced, then, that this--that treatment is not necessary, is that correct?

MR. DAVIS: Yes, sir.

MR. METZLER: Are they aware of the social and economic effects which this will have upon Sioux City as a metropolitan area?

MR. DAVIS: I am afraid that is a question I couldn't answer, Mr. Metzler.

MR. METZLER: Let me be specific. Are they aware of what this means to the growth of the community under Iowa law, your ability, let's say, to extend sewers or your ability to get FHA loan guarantees for houses?

MR. DAVIS: Well, I would rather imagine--I am glad you mentioned that--I would not think that any governmental agency could withhold any privilege or anything that was granted to them by the state legislature or by Congress if that decision were punitive in nature and based solely on the finding in a conference such as this. If after the matter has been finally judicially determined, as is specifically set forth in our state statutes and in public law, they then withhold those things, they are proper, but if you are trying to infer by that that the City of Sioux City is going to be punished for taking a stand which it sincerely believes is correct and before it has been finally judicially determined, I shall say to you, sir, that we will find out in some court or other whether or not it can be done.

MR. METZLER: This, of course, wasn't--these remarks were no threat.

MR. DAVIS: You see, I have heard them before.

MR. METZLER: I have no official connection with either of the agencies that I mentioned.

MR. DAVIS: I understand.

MR. METZLER: This has happened in other parts of the country.

MR. DAVIS: In Wichita and in St. Joe.

MR. METZLER: Whether it would happen here, I do not know.

I would say to you, I came up here rather impressed with the good record which Sioux City had up until a relatively short time ago, I think as impartial about this, perhaps, as one could be. Certainly, however, this attitude of saying, "We are going to keep our evidence close in here to our chest until we get a chance to try this in court," doesn't either impress or particularly frighten me as a member of the conference. But it seems to me it is unfortunate, I will say, if you can't enter into the conference in the fashion in which it was called.

MR. DAVIS: Of course you understand that I am saying to you that our basic position is that we are not polluting.

MR. METZLER: Well, and of course I would say to you that no reasonable individual--and this may show extreme bias, but let's go out and take a look at the river and at the floating solids and so forth--no reasonable individual can really believe this.

MR. DAVIS: Well, then certainly there should be no reluctance on anyone's part to submit it to a court, should there, if it is that simple?

MR. METZLER: I am sure that there is not, except for the involvement that it seems to me puts the city to unnecessary expense and holds it up to unfavorable opinion in the considerably bigger court of its neighbors.

MR. DAVIS: Well, I would say both of our neighbors, judging from what I have heard today, are in about the same boat, aren't they?

MR. METZLER: Let me say about Kansas, then, and I will conclude with this, that Atchison is ready and committed to place under contract a plant by January 1, 1960; that the plans at Leavenworth have been completed for four years and they are ready to go on the same date; that Kansas City, Kansas, is spending 4 million dollars now to rearrange its interceptor sewers and is moving along toward treatment again by January 1, 1960.

I have no other questions, Mr. Chairman.

MR. STEIN: Do you have any questions or comments, Mr. Carl?

MR. CARL: No.

MR. STEIN: Mr. Smith?

MR. SMITH: No.

MR. STEIN: Mr. Houser?

MR. HOUSER: Yes, I would like to make a couple of comments, please.

I first of all want to reiterate--Mr. Davis was at the time city solicitor, so this is not news to him, I know--what I said in my statement this morning, that at the time when a hearing was held under the Iowa law in Des Moines on the condition of the matter of pollution of the Floyd River, Perry Creek and Missouri River, in October of 1954, later in December of that year a conference held with the city officials, that a schedule of planning with the ultimate final step of letting a contract for the necessary pollution corrective measures was agreed upon by the city. And further that the city at that time requested a continuance of the matter in view of the fact that they said that such order was not necessary, the city was going to proceed. I think that points to only one thing, that at that time the city did admit that there was pollution.

MR. DAVIS: At that time-- I was with you up to that last phrase, Mr. Houser. I agreed with your statements made this morning, too. At that time we agreed to go ahead and stage this out to remedy the situation that existed. There is no question about that at all. I think we did a pretty good job in view of all the circumstances. Never at any time in those proceedings, and particularly in the motion to continue, was it admitted by the city or the industries, who are part of this too, that a condition of pollution as defined in the public law also existed.

However, we did certainly agree to go ahead and stage it out. Now Omaha had a bond election that failed, so did St. Joe. We in Sioux City had a change of administration. This was a matter of some discussion in the campaign proceedings. This administration has now said we are not convinced, we do not believe that a condition of pollution exists, we are going this far and no farther, and you mustn't forget for a moment, gentlemen, the second point that I made, and it is not economically feasible for us to do so.

MR. HOUSER: Mr. Chairman.

MR. STEIN: Mr. Houser

MR. HOUSER: May I make one more comment?

The point is that there wasn't any order issued which would bring the matter to--under enforcement of the state law to a court action.

MR. DAVIS: That is correct.

MR. HOUSER: Because the motion for continuance requested by the city was granted.

MR. DAVIS: That is correct.

MR. HOUSER: Now, in regard to change in councilmen, as I also mentioned in my statement, that was discussed at the time--I mean there was a meeting with the council. Mr. Hopkins and myself met with the council to further inquire as to the plans and also to explain any reasons why the city should continue with their planning at that time. The resolution here at the last one that was filed--

MR. DAVIS: Incidentally, will all of that be a part of the record? If not, I would like to give a copy to the reporter.

MR. HOUSER: I wish you would. I didn't mean not to make it a part of the record.

MR. DAVIS: I didn't mean to infer that, Mr. Houser. I just wanted to make sure that the conferees had the entire thing.

MR. HOUSER: I wish you would.

(IOWA EXHIBIT NO. 2 MARKED FOR IDENTIFICATION.)

MR. HOUSER: This resolution provides that there would be a reduction in the waste load contributed by the industries and that that might reduce the so-called pollution at Omaha and that there would be an engineering study made. Are you prepared or is the city prepared to present any results of that engineering study at this time?

MR. DAVIS: Not at this time. However, the interceptor sewer paralleling the Missouri to the Floyd underneath the interstate is in such a stage--I can't think of the engineering term--but it will be done. The $600,000 that we are spending this year for the interceptor to parallel the Missouri down to the Floyd, that will be done. Of course, as you and I both know, when we issue revenue bonds for that under our present law as expressed by the Supreme Court we can't issue another nickel's worth of sewer bonds, which is one of the items that would bear on the matter of economic feasibility which I spoke about before.

MR. HOUSER: That would be, in my opinion, taking care of only a part of the total pollution load contributed by the city. In other words, that would be the industrial wastes only. And as has been pointed out, there are other--

MR. DAVIS: I think you misunderstand me. I am speaking of the one that parallels the Missouri down to the Floyd, which was part of our comprehensive plan to gather all this and take it to the sewage plant. It will be laid under the interstate highway before the interstate highway is laid. That will be done this summer.

MR. HOUSER: Those portions of the interceptor sewer to be laid under the interstate highway will be--

MR. DAVIS: Mr. Bodine, isn't that from the Floyd to the Perry Creek, roughly?

MR. CORNELIUS BODINE, JR. (City Manager, Sioux City, Iowa): That is right. We have got portions of it already in the ground.

MR. DAVIS: Yes. In other words, that is costing us as much this summer as it would cost Omaha to take that outlet away from Council Bluffs, but we are doing that this year.

MR. HOUSER: Yes, I realize that. I mentioned that in my statement, as you will recall, this morning that some portions have been constructed and some are under construction, the plans.

MR. DAVIS: Yes.

MR. HOUSER: But the situation regarding the resolution as to providing for treatment of the industrial wastes only would not affect the total pollutional load contributed by the city to the Missouri River because of the--unless the entire interceptor sewer system and treatment plant was constructed.

MR. DAVIS: Well, I lost you there, Mr. Houser.

MR. HOUSER: In order to provide treatment of the industrial wastes only, that would only reduce the pollution contributed by the industries.

MR. DAVIS: Yes.

MR. HOUSER: Now, unless the city proceeds to install the interceptor sewer fronting the river and going on up beyond the industrial area in the Floyd River valley and installing the municipal treatment plants, the total pollutional load would not be reduced.

MR. DAVIS: That is correct.

MR. HOPKINS: Mr. Chairman, both Counselor Davis and Mr. Houser have made mention of the hearing in Des Moines at an earlier date. I would ask that the transcript of that hearing by reference be made a part of this transcript.

MR. STEIN: That will be done. Thank you.

(IOWA EXHIBIT NO. 3 MARKED FOR IDENTIFICATION.)

MR. STEIN: Mr. Davis, you will give Mrs. Hough the full copy of that resolution?

MR. DAVIS: Yes.

MR. STEIN: Let me indicate here before you go, that you made one statement on which I think we should make our position clear: That we are reluctant to go to court. The reason we are reluctant to go to court is because we don't think it is in the interest of the taxpayers of this country or of this city to resolve pollution control cases by court action unless it is absolutely necessary. We further firmly believe, and the Congress firmly believed in passing this Act, that the only way we could do this job is by a cooperative federal, state and local program. Our purpose here is to put into effect that cooperative program.

Now, we in the Public Health Service and in all the states we know of do a public business in a public way. That means we give our conclusions and our reasons for these conclusions. I will say in extensive work with the Missouri basin states that we have found all parties ready to adhere to that principle and I want to emphasize this "all bodies," whether it be the Public Health Service, the states, the cities and counties which are also public bodies, and the industries. We have never had a situation that I know of where we have not gotten an industry up to state its position and once it did that to give its reasons therefor.

That is all I have to say. Do you want to make any further comments, have any further comments, Mr. Davis?

MR. DAVIS: Yes. It has been suggested that inasmuch as you are going to discuss this here today that I read this complete resolution before I leave.

MR. STEIN: Yes.

MR. DAVIS: I believe Mr. Houser went through the first part of it.

"That the City Manager"--

MR. METZLER: Let's hear it all.

MR. DAVIS: Do you want to hear it all?

MR. METZLER: Let's hear it all right from the beginning.

MR. DAVIS:

"WHEREAS, the City Council of the City of Sioux City agreed by Resolution No. R-1907 on January 17, 1955 to take three steps with the ultimate single objective of reducing its share of the cause of pollution in the Missouri River at Omaha so as to meet the standard recognized as acceptable by the United States Public Health Service; and

"WHEREAS, the City has completed Step No. 1 by making preliminary engineering survey to measure the sources, amount and quality of sewage flows originating in Sioux City, and by preparing preliminary design and cost estimates for collecting and central treatment of sewage, and by raising its sewer rentals to permit financing of 'construction of more urgently needed lateral sewers' and interceptors, as called for in Step No. 2; and

"WHEREAS, said engineering survey has revealed that industrial wastes originating with the packing industry give rise to 77% of the solids injected into the Missouri River at Sioux City, and that, as a result of said survey, the City's consulting engineers state that elimination of said industrial wastes 'might' bring about reduction of pollution of the river at Omaha so as to meet the standard recognized as acceptable by the United States Public Health Service; and

"WHEREAS, Mr. Glen T. Hopkins, Regional Engineer of the United States Public Health Service and Mr. P. J. Houser, Chief Engineer of the Iowa Department of Health, stated at City Council meeting on March 22, 1958, that any reasonable modification of the three-step schedule set forth in Resolution No. R-1907 would be satisfactory under the programs of their respective agencies;

"THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF SIOUX CITY:

"1. That the City Manager is hereby instructed:

"a. To obtain a detailed report of evidence and engineering judgment from the City's consulting engineers with the aim of determining whether or not the elimination of industrial wastes from the Missouri River at Sioux City will for a fact reduce pollution of said river at Omaha so as to meet the standard of the United States Public Health Service.

"b. To proceed with all haste to arrange meetings of the City's consulting engineers and technical representatives of the packing industry with the aims of:

"(1) Determining precisely all possible and practical means of eliminating and/or pretreating such industrial wastes, and

"(2) Drawing up a feasible schedule for implementing such determinations, and

"(3) Estimating the amounts and possible practical methods of crediting each member of the packing industry for corrective steps to be taken in the event the City should ultimately construct a collector system and treatment plant.

"c. To take necessary steps to insure construction in 1958 of that portion of the interceptor system which, as a result of construction of sections of the interstate highway in 1958, will cost the City less to construct this year than at a later date, and in connection with same,

"(1) Consult with the State Highway Commission with the aims of: having such sewer construction included in the Commission's contract for paving; and obtaining a credit to the City in the amount of the cost of a 30 inch connector sewer which the Commission would otherwise have to build if the City's interceptor system is not constructed.

"(2) Prepare a report showing the amount of money, over and above sewer rental proceeds, which the City must obtain in 1958 through sale of sewer revenue bonds in order to construct said interceptor sewers.

"2. That at the present date the forward steps being taken by the City of Sioux City with respect to river pollution constitute a reasonable modification of the schedule stated in Resolution No. R-1907 because of three factors:

"a. The presently unknown degree of correctible influence of industrial wastes in Sioux City on the bacteria count in the river at Omaha.

"b. The lack of convincing clarity on the part of Federal and State authorities as to the precise nature of the health hazard in Omaha's treated water resulting from the existing or potential bacteria count in the river at Omaha.

"c. The tangible steps being taken by the City of Sioux City toward sewage treatment, estimated in 1958 to cost $600,000.

"3. That the steps set forth above constitute the limit of the program of the City of Sioux City at the present time, and that in the event the several government authorities believe that the Missouri River is being polluted unreasonably at Omaha as a result of input at Sioux City, then the City of Sioux City shall proceed with all haste to officially demand a Court decision."

Blank line, Mayor.

Now, gentlemen, following the conference in Des Moines in '54 we had our plans, as Dr. Houser told you, for an interceptor system and a sewage disposal plant. The previous year we put in interceptor sewers out in the Riverside area from the Sioux down along the Missouri under this new highway to--and this is an approximation--but I think we spent $200,000 last year putting in interceptor sewers. This year we are spending $600,000 putting them in. We say here that is as far as we can and we will go and that if you think we should go any farther, then you prove it to us in court. When this resolution was passed, Mr. Hopkins, Dr. Zimmerer said it is not satisfactory, so that is why we are here. Now, will that clear the air?

MR. STEIN: The air has been cleared. You are still standing on that resolution?

MR. DAVIS: That is the first thing I said, Mr. Chairman. We stand on this resolution.

MR. STEIN: Yes, I just said that for the record.

MR. DAVIS: We don't agree that we are polluting, affecting the health and welfare of anyone, and it is not economically feasible for us to do more at this time.

MR. STEIN: I don't have any further questions, but may I--since you have read that I think I would like to, if you can spare another moment, see if these other gentlemen--

MR. DAVIS: Yes. My office is just across the street.

MR. STEIN: Mr. Metzler?

MR. METZLER: There was a question I wanted to ask purely for information, Mr. Davis. Since you are obviously pressing for a court case here, are you interested in doing this in state or federal court?

MR. DAVIS: I am interested in doing it in any court where I can have Mr. Kittrell and other people explain a little more fully to me what they are talking about. You can choose the forum. I don't care.

MR. STEIN: Mr. Davis, we have a standing over in the Public Health Service, any time that you wish, and we can arrange with Mr. Kittrell or anyone else, we will be glad to come out here or you can come to Cincinnati and Washington and Mr. Kittrell will explain to you or any other duly constituted members of the city authorities at length what he is talking about. We suggest that to Mr. Houser.

MR. DAVIS: I don't mean to demean what he said. I am acquainted with the gentleman by reputation and things he has done. I am saying I would like to go into those things before a tribunal that will pass on the key questions of pollution.

MR. STEIN: That is enough.

Are there any further questions and comments?

MR. DAVIS: Facts, not conclusions.

MR. STEIN: Thank you, Mr. Davis.

Do you want to say something, Mr. Houser?

MR. HOUSER: I want to make just one more comment.

I would just like to merely explain that in our opinion the purpose of this conference was two-fold, you might say, to indicate to one extent the interest and concern over the pollution of the Missouri River by having a conference here with the agencies, state water pollution control agencies, because of the background of this movement of the five state water pollution control agencies to set up a uniform program for abatement of pollution in the Missouri River. Now, we felt that the conference, which has been very well attended by representatives of the other states, and to indicate the action that we have taken, the action that is being done by the cities, the representatives in their particular states, to try to develop a uniform program, is, in our opinion, the way of showing the concern of this problem.

That is all on that, Mr. Stein, except that I have invited or did invite the industries--

MR. STEIN: Well, do you want to say anything, Mr. Davis?

Thank you very much for your statement.

MR. HOUSER: I did invite industries that are contributing wastes to the streams through their own separate outlets. Now, I would like to call on the industries, if any of them are represented here, for any statement they will wish to make. Is that permissible at this time.

MR. STEIN: Yes, sir.

MR. HOUSER: First of all, I would like to call on Armour and Company. Is there anyone here representing Armour and Company who would like to make a statement at this time?

MR. VIRGIL EADES (Armour and Company, Sioux City, Iowa):

We have no comments at this time, sir.

MR. STEIN: Would you please, for the record, give your name?

MR. EADES: I am Virgil Eades, E-a-d-e-s, general manager of Armour and Company, Sioux City.

MR. HOUSER: Next is Swift and Company.

MR. HENRY SHULL (Swift and Company, Sioux City, Iowa):

My name is Henry Shull, S-h-u-l-l, and I represent Swift and Company, represented at the conference. Mr. Cowan is here, the plant manager, and Mr. Lindquist, our engineer.

The only statement I can make, Mr. Chairman, is this, to reiterate the statement that we made at the conference in Des Moines, which was that we are part of the city here, that we are a taxpayer and citizen, and of necessity must, we feel, go along with whatever program can be worked out with the city.

MR. HOUSER: Thank you.

MR. STEIN: Thank you.

MR. SHULL: We made that statement at Des Moines three years ago and we reiterate it in substance now.

MR. HOUSER: Thank you.

The next firm is Smith Packing Company.

MR. BYRON SIFFORD (Smith Packing Company, Sioux City, Iowa): Mr. Chairman and conferees, I wonder if I might include Albertson in my presentation, because I represent them also and combine Smith with Albertson?

MR. STEIN: That will be perfectly all right.

MR. SIFFORD: If that is agreeable.

Albertson was an alleged offender in the state proceedings as having had an outlet for industrial waste, and I want to say both with reference to Albertson and Company and Smith Packing Company that I do not want my appearance here or anything that I may say to be construed as an admission of the fact of pollution. I say that in view of the remarks that were made here about appearing in Des Moines where in no sense did I say anything that would admit that my clients were guilty of contributing to that pollution. But I think there are some facts here which the conference should know.

The first report that involved Albertson and Company was the supplemental report of September of 1954, and in that report reference was made to alleged industrial waste from Albertson and Company. Now, the only--practically the entire source of any industrial waste from Albertson and Company came from what was known as its abrasive plant. If there was anything that contributed to pollution by virtue of industrial waste from Albertson's it had to come from the abrasive plant. Since the date of the supplemental report and hearing in Des Moines that abrasive plant has been closed in Sioux City and is no longer in existence. That is the fact that I wanted to point out to the conferees at this time, that if we were in any sense contributing to pollution it has been presently abated.

As to Smith Packing Company, that is a very small concern with very little industrial waste, and the only thing I have to say with reference to that is that since the hearing in Des Moines, it was a partnership, one of the partners has since died and there is a dissolution of the partnership and there will have to be an eventual liquidation of that partnership.

MR. STEIN: Thank you, sir.

May we have your name?

MR. SIFFORD: Byron L. Sifford, S-i-f-f-o-r-d.

MR. HOUSER: I have the Raskin Packing Company. No one here from the Raskin Packing Company?

The Sioux City Stockyards Company.

Allied Laboratories, Inc.

Meyer Packing Company, M-e-y-e-r.

Sanitary Rendering Company.

Tri-State Produce Company.

MR. ERNEST TUREK (Representing A. H. Baron, Sioux City, Iowa): My name is Ernest Turek, T-u-r-e-k. I am speaking for Mr. A. H. Baron of this city on behalf of the Tri-State Produce Company.

Tri-State Produce Company has no comment to make.

MR. HOUSER: Thank you.

The Sioux City Dressed Beef Company?

Sioux City Dressed Pork Company?

Mr. Chairman, there was one additional invitation and that was to the T & W Packing Company, and we were advised that that company is no longer in business, operating.

MR. STEIN: Thank you, sir.

MR. HOUSER: So that completes the list of industries that were invited to this conference.

MR. SHULL: Dr. Houser and Mr. Chairman, I would like to say that the Sioux City Stockyards Company were invited as an observer and are present here--I represent them, as I did in Des Moines--but they have no comment to make at this time.

MR. HOUSER: I did call the name, Mr. Shull.

MR. SHULL: Yes. I wanted you to know that we were here.

MR. STEIN: I think we can move to the next point on the program and I think we would have to, in a sense, back up a bit, because it is a question of getting an expression of views from the conferees on the basis of whether there is interstate pollution within the meaning of the federal Act subject to abatement under the federal Act or whether there isn't and whether the measures proposed to date are adequate to handle such pollution if it exists.

Now, in order to set this session up, we had a report of the Public Health Service largely based on state studies and state reports, also a statement from the Corps of Engineers and various other people from the states and the cities and municipalities representing water users and water plants. All of these reports seem to compliment each other with reference to pollution.

We also have had a statement from the representative of Sioux City that that city did not believe that pollution affecting the health or welfare of persons in other states exists.

Now, I think for the purposes of summary, you are all familiar with the statements, and I would like to go down and get an expression of the views, what the conclusions of the conferees are. Do you think that the statement of Sioux City or that the statement of Mr. Kittrell as supplemented by the other statements expresses your views?

I wonder if we could start here.

Mr. Carl?

MR. CARL: South Dakota is in the rather enviable position in this particular conference of being upstream from Sioux City and not affected by any waste discharged by that particular city, but from having participated personally in the 1950 study on the River, having worked to considerable extent with the submission of data which was presented in Mr. Kittrell's report, having studied Mr. Kittrell's report, it seems to me that there is no question but that there is pollution of the river of an interstate nature.

MR. STEIN: Thank you.

Mr. Filipi?

MR. FILIPI: I concur with Mr. Carl. From the studies that we have, the evidence that has been presented to us and which is available to us, I think there is no question that interstate pollution does exist.

MR. STEIN: Mr. Houser?

MR. HOUSER: As explained in our statement this morning, we conceded the point of feeling that pollution existed and to the point of having a hearing. We feel that there is not only pollution of the Missouri River, that there is pollution of the Floyd River. At the time of the hearing there was also pollution of Perry Creek. However, that has been corrected to some extent, at least, at this time, but we still feel that the Floyd River and the Missouri River are polluted.

MR. STEIN: May we go on, then, and ask Mr. Metzler.

MR. METZLER: Well, certainly on the basis of the evidence that has been presented here today there would seem to be no doubt but what pollution exists as within the intent and the definition of the federal law.

While one can't help but recognize the city's right to disagree with the official agencies and the so-called experts here, I can't help but hope that they will give the matter some further mature study and that they themselves may be convinced that the problem is as serious as it appears to be from the facts that have been presented.

MR. STEIN: Thank you.

Mr. Smith?

MR. SMITH: We are of the opinion that the material submitted indicates interstate pollution as defined by Public Law 660.

MR. STEIN: Thank you.

Mr. Hopkins.

MR. HOPKINS: Studies conducted by the field office of the Public Health Service, laboratory analyses reviewed by our technical and research center confirm that interstate pollution does in fact exist.

MR. STEIN: Thank you.

Now we have to move to the next point and that is whether remedial action or the measures outlined here are satisfactory. I think we might lump the South Dakota communities together in one package. This will deal with Yankton, Vermillion, and Elk Point. Elk Point has works under construction. Both Yankton and Vermillion are scheduled to construct remedial works during the construction season of 1959. And it may be that later on when we get more precise the conferees may want to establish dates.

Mr. Carl?

MR. CARL: May I correct you. To let contracts for remedial works in 1959.

MR. STEIN: Thank you. I stand corrected.

Now, would you think that this progress report by Mr. Carl of the work done by the South Dakota communities would be satisfactory to meet the objectives of providing remedial measures to correct their contribution to pollution of the interstate waters of the Missouri River?

I think we will ask you last on this, of course.

Mr. Filipi?

MR. FILIPI: That is acceptable to me.

MR. STEIN: Mr. Metzler?

MR. METZLER: That is very fine.

MR. STEIN: Mr. Smith?

MR. SMITH: Yes.

MR. STEIN: Mr. Houser?

MR. HOUSER: Yes.

MR. STEIN: And Mr. Hopkins?

MR. HOPKINS: Yes.

MR. STEIN: Now, I think it also might be best to take the cities of South Sioux City, Blair--well, Blair, I think, is under construction, and I assume unless I hear to the contrary that that is acceptable. We might leave South Sioux City and Dakota City until we have considered the question of Sioux City.

Now, I take it that according to the reports of the state that Sioux City will still be contributing a substantial pollution load to the river. Now, may we go down the list again, and I think we might take that side of the table again since you folks are downstream.

Would you think in light of the facts as presented in here today and in light of the fact of what Kansas, Missouri, and Nebraska and South Dakota cities are doing, that the proposal made by Sioux City not to proceed any further than they have to proceed unless a court tells them to is an acceptable and adequate solution?

Do you feel that that is an acceptable and adequate solution, Mr. Filipi?

MR. FILIPI: Not to us.

MR. STEIN: Mr. Metzler?

MR. METZLER: No.

MR. STEIN: Mr. Smith?

MR. SMITH: No.

MR. STEIN: Mr. Carl?

MR. CARL: No.

MR. STEIN: Mr. Houser?

MR. HOUSER: No.

MR. STEIN: Mr. Hopkins?

MR. HOPKINS: No, sir.

MR. STEIN: Well, when we have arrived at that conclusion, the next step in the conference, of course, is the attempt to establish a reasonable time schedule for what we consider to be or the conferees consider to be adequate remedial measures for the town. I suggest we consider that for Sioux City. Now, if we follow the pattern we followed at other communities, there are several patterns, there is a pattern here that we would like to get an opinion on.

One, we would like to get an opinion, and this is comparable to the situation we had at St. Joe, as to when industry would notify the city as to the waste load they would contribute to the system.

Second, as I understand this, the City of Sioux City has not yet contracted for final plans. We should set a date for the time they are to set final plans, a date for when final plans will be completed, a date as to when financing is to be arranged, a date when contracts are to be awarded.

Now, I think we might check and see whether this has been worked out or any of the conferees may wish to make a proposal in this regard.

MR. HOPKINS: I would like to propose a schedule as follows, after having given the matter considerable thought, after having evaluated the work that has already been done as reported through progress, and our understanding of the work that remains to be done before the various steps that you have named can be completed. I would like to suggest the following schedule for consideration by the conferees.

First, that the industry whose names have been mentioned here today advise the city as to their estimate of the waste load that will be contributed to the municipal sewer system to serve as the basis of design for sewage treatment facilities not later than October 1 of this year, '58.

Two, that the city instruct its consulting engineers to proceed with final plans and specifications for the work covered in the preliminary engineering report not later than November 1 of 1958.

That those instructions provide for the final plans and specifications to be completed not later than April 1, 1959.

And that the city arrange its financing both through its own arrangements of its citizens and contributions by industry not later than April 1, 1959.

And the contract for Stage 1 of the work as outlined on Page 28 of the consulting engineering report, which are Sections B, D, F, G, H, and the treatment plant not later than July 1 of '59.

And that the remainder of the work as outlined in the consulting engineers' preliminary report be placed under contract not later than January 1, 1961.

I believe those schedules are possible and reasonable with conscientious effort and endeavor on the part of the city, the industries, and the consulting engineers.

MR. STEIN: Well, to be consistent with the other communities on the Missouri River, I would like to ask Mr. Houser, are there any discharges of paunch and bedding manure--paunch manure and bedding wastes into the river at this time, or garbage at this time?

MR. HOUSER: I believe that there are.

MR. STEIN: Well, O.K. If there are, to be consistent we may wish to state a date for the cessation of that practice.

MR. HOPKINS: That is a matter that can be handled without the construction of sewage treatment facilities per se, and I would think that thirty days or September 1 of '58 would be a reasonable target date for that.

MR. STEIN: Thank you, Mr. Hopkins.

Are there any comments on the schedule proposed by Mr. Hopkins?

MR. CARL: Mr. Chairman, in light of the statements made by the representative of Sioux City, they don't intend to, as I understand it, apparently make any effort to provide for any further treatment and they are interested in going to court and having it decided in a court of law as to whether they are contributing pollution to the stream or not. Is it necessary to prepare such a statement of times?

MR. STEIN: Now, we would prepare this statement of time in a reasonable manner, whether Sioux City appeared here or not. Now, we have heard some expression, as I said, about a city's coming in here and just saying they are not going to do it and not giving reasons. I think we have indicated as a public agency it behooves us, one, to say what we are doing, give our reasons, and act in a reasonable manner. We would do that even if Sioux City did not appear here at all. And that is the way we --

MR. CARL: But they have appeared, though, and made their statement that they don't think they are contributing to pollution and they are not going to do any more work.

MR. STEIN: I think, and again let this be for the record, I think once they look at this and the summary they certainly can have another chance for a change of heart and to change their position. There is nothing to stop Sioux City from meeting this reasonable schedule if we prepare a reasonable schedule. We certainly are not anxious or looking for a court case and if they want to comply with the schedule and change their minds, well, that would be just fine. I think our primary interest is getting the river cleaned up in a reasonable--within a reasonable time and providing equitable dates for communities to do that cleaning.

MR. CARL: Let me ask one more question. In the event that such a schedule is presented to Sioux City for their consideration and again they reiterate their stand that they don't intend to provide any additional sewage treatment because they believe that they are not contributing to pollution of the river, the procedures can be established then for taking it straight to court under the Federal Pollution Water Control Act?

MR. STEIN: There will be a hearing first. The procedure in the Act is defined, and there will be an administrative hearing.

Do you have any questions, Mr. Smith?

MR. SMITH: We are obligated to make a summary and set a time for this, are we?

MR. STEIN: We are obligated to set up a summary and I think, as I say, if we don't set up a time schedule, the Surgeon General is obligated to do that. And our practice has been, we always have believed that in the interest of federal-state relations it is certainly better for the time schedule to be set by the conferees rather than have the Surgeon General do that back in Washington. And he thinks that is a good way to operate, too.

Do I hear any other comments on the time schedule or am I to assume that this is acceptable?

MR. METZLER: I want to ask a question about the time schedule. I note that the time which is allowed for the preparation of final plans here is about that that you would normally expect from a project of this size and scope. Does this represent some sort of judgment on the part of the State of Nebraska as to the engineers' ability to prepare this--I am sorry--of Iowa?

Do the consulting engineers, Paul, indicate that they can prepare these plans in about this length of time?

MR. HOUSER: I was going to suggest, Mr. Chairman, that you have some time schedules here which are dependent upon the ability of the engineers, consulting engineers, to accomplish these things within that time. Now, it would seem to me the consulting engineer for the city should be consulted in regard to these time schedules before they are accepted. Now--

MR. STEIN: Well, they had and they have now an opportunity for consultation.

MR. HOUSER: Well, do you suggest a recess so that we can consult with them, or shall we call them up here?

MR. STEIN: I don't necessarily suggest a recess because, as I understand the statement, the city has made its statement. Now, if the consulting engineers or the city want to make a statement here to discuss this time schedule or the feasibility of it or if they would wish us to make a--to recess this so the consulting engineers can confer with Mr. Houser, we will be glad to arrange that. But I see no point in recessing if all we are going to do is walk out and walk back. And I think we should determine that before we made our next move.

MR. SHULL: Mr. Chairman, I think it has been a little difficult to hear and I wonder if you would reread that schedule so that some of us could get the times.

MR. STEIN: Yes, we will do that.

Mr. Hopkins, would you just want to read the schedule?

MR. HOPKINS: All right.

The industry to notify the city of the waste load to be contributed to the sewage treatment plant not later than October 1, 1958.

Step 2. The city to instruct its consulting engineers to proceed with final plans and specifications or to otherwise arrange for those final plans and specifications not later than November 1, 1958.

The final plans and specifications to be completed by April 1, 1958.

The financing to be arranged by the City, including negotiations for industrial participation, not later than April 1, 1959.

Both of those April dates were 1959.

Award the contract for Stage 1 construction as outlined on Page 28 of the consulting engineers' report, including the sewage treatment plant, not later than July 1, 1959.

And to award the contract for the remainder of the work outlined in the consulting engineers' report not later than January 1, 1961.

MR. SHULL: Thank you.

MR. HOPKINS: And to eliminate a discharge of paunch manure, bedding and related wastes not later than September 1, 1958. That would be a very early action.

MR. STEIN: Thank you.

Well, does anyone from Sioux City want to answer the question as to whether they would like to discuss the time schedule here or have a recess and discuss it with Mr. Houser?

MR. DAVIS: Neither. I would not think it would be consistent, Mr. Stein, for us to discuss it at all, because of the position we have taken in the matter. Actually, I also do not want to put the engineers in a position of answering questions that they are not prepared for. They are here today solely to advise me and Mr. Bodine technically. So the answer to that is, as I said at the start, neither.

MR. STEIN: Yes. Well, thank you.

MR. DAVIS: I feel certain that the panel is quite qualified to arrive at dates, incidentally.

MR. STEIN: Yes. I am sure your position is quite consistent.

Now, is there any objection by the conferees to the time schedule? If there is, we will modify it. And if there isn't, we can check down and see if this is agreeable.

Are there any questions on particular items that any of you want to raise?

MR. HOUSER: Mr. Chairman, I suggest that the first date, October 1, 1958, be changed to January 1, 1959. That would be the industry notify the city as to the waste loads to be contributed.

MR. STEIN: Well, does anyone want to discuss that?

MR. HOPKINS: I think this is a matter that has been under investigation for at least two years. I think the experience in other cities has indicated that with the work already done in Sioux City that the date of

October 1 is not unreasonable and I would suggest that it adhere unless someone shows cause as to why it is not a reasonable one.

MR. METZLER: May I ask Mr. Houser for his reasons? Obviously, as the man in whose state this is occurring and as careful an individual as he is, he didn't make this statement without some reason. Do you mind telling me?

MR. HOUSER: I am sorry I didn't mention that.

The reason being that I had discussed a schedule with one of the consulting engineering staff members and it was his suggestion that should be changed to January 1, 1959. And it was also his suggestion that the date for final plans to be completed be July 1, 1959, and that the contract award date for Stage 1 be changed to September 1, 1959.

MR. STEIN: How about the date for contract for final plans?

MR. HOUSER: Well, that date was not discussed, Mr. Stein.

MR. STEIN: Well, that would have to be adjusted if, I think, your proposal would carry.

MR. HOUSER: Well, I can't speak for the consulting engineers in the city in regard to some of these things, on the negotiation between the consulting engineers and the city. I think they ought to be in on this conference and establish this schedule. If you want to aim at a reasonable schedule, it seems to me they ought to be in on the conference.

MR. STEIN: They were given a full opportunity, Mr. Houser. I think we have an obligation to proceed and you do have some other dates. Now, what I am suggesting, in order to have a consistent schedule we have to have one more date from you in order to have a complete proposal.

Now, we gave--on this other schedule there was a one-month lapse between the industry notification and the contract for final plans. It seems to me if we followed yours, and I am not speaking for this, just trying to perfect the proposal, that it might be appropriate to make Step 2, contract for final plans, February 1, 1959. Would that seem to be reasonable? Leave the same time lapse?

(Off the record.)

MR. STEIN: Can we make that February 1, Mr. Houser?

MR. HOUSER: For final plans to be completed?

MR. STEIN: No, Step No. 2.

MR. METZLER: Wait just a minute. Now, he didn't ask for February 1. Houser asked for January 1, '59.

MR. STEIN: For Step No. --

MR. METZLER: For Step No. 2.

MR. FILIPI: No.

MR. HOUSER: Step 1.

MR. STEIN: For Step 1. Therefore, we have to move Step 2 backwards.

MR. METZLER: I still--

MR. HOUSER: It would seem to be reasonable, as far as I can see.

MR. METZLER: I would still like to direct a question to Mr. Houser, Mr. Chairman.

MR. STEIN: Yes.

MR. METZLER: I started this line of questioning because I was anxious that we do have a reasonable schedule. Now, do I understand we are in the position of having to set a schedule since we can't even talk to the city's consulting engineers and ask them what length of time this would take? Now, if they can't talk on this basis, then I think we ought to go along with the original schedule, unless there is some reason other than some date that somebody has just picked out of the air and said, "Well, I would rather make it January 1 instead of November 1." Unless we can back this up with facts, then I want to go with the original schedule.

MR. HOUSER: Well, I merely explained, Dwight, that this schedule was developed first at a conference by Mr. Hopkins and me in my office and I explained to Mr. Hopkins at the time you have got some dates set here or we are setting some dates here, suggested dates, that depend upon the engineers' ability to comply with them.

MR. METZLER: Right.

MR. HOUSER: And I would like to consult with the engineer to determine whether these dates are satisfactory. Later I did consult with the engineer and the dates that I was given did not agree.

MR. METZLER: I see.

MR. HOUSER: Now, I can't give you any further explanation as to why they didn't agree except that is the engineer's opinion.

MR. METZLER: Well, is this convenience or a matter of his convenience or is this a matter of not actually being able to get the necessary data? I think the answer to this question is quite important to us here.

MR. HOUSER: I think it is not convenience strictly. It is a case of more the ability to get the necessary data. I don't have to tell you that consulting engineering firms vary in size and the number of projects they have rolling, and so on and so forth. Now, all I can say is that the consulting engineer advised me that these dates were more satisfactory.

MR. METZLER: The city attorney won't let us talk with them, so will you tell me that in your judgment, then, you think we should go for the January 1 date instead of the November 1 date?

MR. HOUSER: Do we have any reasons that that should not prevail? In other words, do we have any reason for going with Mr. Hopkins' suggestions or the schedule that was read here?

MR. STEIN: As I understand what was said in Mr. Hopkins' proposal, he was basing that schedule on the length of time it takes for comparable work in other cities having the same kind of problem and having experience in this matter, in the absence of consultation with consulting engineers. Now, if you have appropriate knowledge of this--all I am saying is that we should get a precise and concise proposal which is consistent and reasonable.

Now, do I understand your proposal to be that the first stage, industry should give them that information by January 1?

MR. HOUSER: 1959, yes.

MR. STEIN: All right. Let's do this date by date, if we can.

Now the second date we had was a month behind that originally. Do you think a month interval is still good?

MR. HOUSER: I would think that would be my personal opinion.

MR. STEIN: All right. 1959.

Then we come to a key date where we are saying that contract for final plans of February 1, 1959. We can have final plans completed on April 1, 1959, can we?

MR. HOPKINS: He suggested July 1, '59.

MR. STEIN: July 1, '59. Now, is that sufficient time? Well, if it is, then the other dates can follow, is that correct?

MR. HOPKINS: He suggested also for five, moving that from July to September.

MR. STEIN: Yes. Now how about the financing? Are you going to arrange financing before you complete final plans?

MR. HOPKINS: That can be done, yes.

MR. STEIN: All right. Is that agreeable to you, Mr. Houser?

MR. HOUSER: Financing by--

MR. STEIN: April 1, 1959.

MR. HOUSER: Yes.

MR. STEIN: All right.

Let me go over this just to see that we are all talking about the same proposal now. And I will just refer to these by steps.

Step 1, to notify the city, January 1, 1959.

Step 2, contract for final plans, February 1, '59.

Step 3, final plans to be completed, July 1, 1959.

Arrange financing, April 1, '59.

Award contract for Stage 1, September 1, 1959.

Award the contract for remaining work, January 1, '61.

And paunch manure and bedding and related wastes, September 1, 1958.

Is that acceptable? That is your proposal? Is that right?

Is that agreeable to--

MR. FILIPI: Sir, a question here. Step No. 7, award contract for remaining work, what was the date on that?

MR. STEIN: January 1, 1961.

MR. HOPKINS: In order to have every semblance of a reasonable schedule, I amend my proposal to coincide with Mr. Houser's.

MR. STEIN: Are you all in agreement on this amended schedule?

MR. METZLER: That is correct.

MR. STEIN: If we are, I think we are in a position to attempt to summarize the conference.

I think we have a situation here where for the first time since we have been holding these conferences there is a disagreement or a professed disagreement on the basic facts of the condition of the waters. I think this is the first time since we held a conference or conferences either in this section or any other section of the country.

The conferees agree that pollution from sources on the Missouri River from Gavins Point Dam down to the water intake at Omaha, Nebraska, discharges from these sources are causing pollution which endangers the health and welfare of persons in states other than which they originate and that the principal sources of pollution are Yankton, South Dakota, Vermillion, South Dakota, Sioux City, Iowa, South Sioux City, Nebraska, Dakota City, Nebraska, Blair, Nebraska, and associated industries. In addition, there was some pollution from Elk Point, South Dakota.

Now, the pollution of the Missouri River from these sources, it is the unanimous conclusion of the conferees, deteriorates the water quality for public water supply at Omaha, Nebraska, with associated enhancement of possible disease transmission; it causes increased concentrations of coliform and other organisms associated with human diseases which constitute a health hazard to recreational, commercial users of the river and persons engaged in navigation; it deteriorates water quality so as to create conditions inimical to fish life in the area; it creates conditions so that it makes the normal operations of navigation more difficult.

At the conference the representatives from Sioux City, Iowa, indicated that they did not believe that Sioux City was contributing to pollution which affected the health or welfare of persons in another state and, therefore, they were not committing--not contributing to pollution subject to abatement under the Act and that the construction of plans would not be economically feasible.

The conferees agreed that the--took cognizance of the work being done in South Dakota and it was pointed out that Elk Point, South

Dakota, now had adequate treatment facilities under construction and that Yankton and Vermillion, South Dakota, were scheduled to let contracts for construction of adequate remedial measures during 1959 and the letting the lease contracts would meet a satisfactory time table agreeable to the conferees.

That Sioux City was--Sioux City and its related industry is the major source of pollution in this stretch of the river; and the nature of the delays in Sioux City and its not being corrected is the determination of Sioux City not to proceed with further remedial measures other than those they have approved and are contemplating up to this point; that in order for Sioux City to comply with adequate remedial measures and do this in a reasonable time and in a manner equitable to the city, that the industry in Sioux City is to notify the city as to the waste loadings they will contribute to a municipal plant by January 1, 1959, if not the industry will be responsible for its own treatment and have to make arrangements commensurate with the rest of the steps in the schedule; that Sioux City award a contract to its consulting engineers instructing them to proceed with final plans for construction of adequate remedial measures to abate this pollution by February 1, 1959; that the final plans be completed by July 1, 1959; that Sioux City arrange financing by April 1, 1959, and if this means going to the voters or doing anything of that sort that that be done, that is included in that date; that Sioux City award a contract for Stage 1 of its construction as outlined on page 28 of the engineering report put into the record, which will include Sections B, D, F, G, H, and the sewage treatment plant by September 1, 1959; and that Sioux City award the contract for its remaining work by January 1, 1961.

Now, we still have one more item to cover, and that is the South Sioux City-Blair-Dakota City situation, and generally speaking, in the other conferences, I have a proposal to make. Where there are smaller communities like this we have asked the state agency concerned--in this case it would be Mr. Filipi of Nebraska representing the Nebraska agency--to take such action under a state program to insure that these communities adhere to a time schedule commensurate with the one established for Sioux City.

Is that agreeable?

Now, we also, and I omitted this from the basic Sioux City schedule and I would like to put this in the summary, that the practice of discharging paunch manure, bedding and related wastes to the river be discontinued by September 1, 1958.

Now, there was one other community listed in Mr. Kittrell's report which he got from the state work, and that is the City of Ponca, Nebraska. I would suggest that consistent with recommendations made at other conferences the state water pollution control board of Nebraska take this matter up with the city and seek adequate treatment consistent with the schedules of Sioux City and the ones which will be followed by South Sioux City and Dakota City. This is just to take up and report.

Is that a fair summary? Does anyone have anything to add or any question?

MR. HOPKINS: I would like to make one addition.

At numerous times during this conference reference has been made to the federal program, to state programs, to federal objectives or state objectives. I would like for the record to show that the program that we are talking about for the Missouri River is item No. 2 of the summary of the conference that constitutes Exhibit 3 of this morning.

I could read that if you would care to have it.

MR. STEIN: No.

MR. HOPKINS: All right. It is Item No. 2 of Government Exhibit No. 3.

MR. FILIPI: I think it would be worthwhile reading it.

MR. STEIN: Well, all right. Why don't you just read it?

MR. HOPKINS:

> "The principal objective of treatment is the improvement of raw water quality for domestic use. Removal of settleable and floating solids shall be considered the minimum acceptable treatment. In the review of plans and specifications each state agrees that consideration shall be given to programs of waste salvage, improved housekeeping, fine-screening, pretreatment, or other control of plating, packing house and other concentrated industrial wastes as necessary to insure reasonable reduction of toxic materials, oil, acids, alkalies, blood, grease, offal, scraps, paunch manure, and other objectionable matter. Supervision and control of waste reduction programs for industrial wastes entering a municipal system shall be the responsibility of the municipality."

MR. STEIN: Thank you.

Now, do any of the conferees have anything to add?

I will repeat this. We will make copies of the summary and transcript available to the state agencies. Other people may obtain copies by getting in touch with their appropriate state agency.

Now, does anyone in the audience want to say anything or have a question at this point?

If not, this conference stands adjourned.

Thank you all for coming.

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APPENDIX A

ATTENDANCE ROSTER

CONFERENCE ON INTERSTATE POLLUTION

Sioux City, Iowa
July 24, 1958

Barstow, John T.	Chairman, Health & Sanitation Vermillion, South Dakota
Berner, Lester M.	South Dakota Water Pollution Committee Pierre, South Dakota
Bodine, Cornelius, Jr.	City Manager Sioux City, Iowa
Bolton, Paul	Henningson, Durham & Richardson Omaha, Nebraska
Cavanaugh, M. J.	Armour & Company Sioux City, Iowa
Clark, Harold	U. S. Public Health Service Cincinnati, Ohio
Clawson, A. G.	Armour & Company Sioux City, Iowa
Cowan, R. E.	Swift & Company Sioux City, Iowa
Davis, George	Legal Counsel for Sioux City Sioux City, Iowa
De Bord, Dee	City Engineer Omaha, Nebraska
Dworsky, L. B.	U. S. Public Health Service Kansas City, Missouri
Eades, V. O.	Armour & Company Sioux City, Iowa
Echelberger, Wayne F., Jr.	South Dakota State Health Department Sioux Falls, South Dakota
Edwards, E. L.	Corps of Engineers Omaha, Nebraska

Ehrich, Glen G.	**Iowa State Health Department Spencer, Iowa**
Fisher, George J.	**Director Public Works Omaha, Nebraska**
Foster, Glen R.	**Nebraska Game, Forestation & Parks Commission Lincoln, Nebraska**
Goodsell, Lt. Col. L. J.	**Corps of Engineers Omaha, Nebraska**
Gutzman, Wayne	**City Council Vermillion, South Dakota**
Haney, Paul	**Black & Veatch Kansas City, Missouri**
Happy, Albert W., Jr.	**Missouri Division of Health Jefferson City, Missouri**
Harrison, Harry M.	**Iowa Conservation Commission Des Moines, Iowa**
Heirigs, Robert W.	**U. S. Public Health Service Kansas City, Missouri**
Huston, G. L.	**Omaha, Nebraska**
Jensen, James L.	**City Manager Yankton, South Dakota**
Johnson, Carl A.	**Indian Hills Development Company Sioux City, Iowa**
Kalda, Don C.	**South Dakota State Health Department Pierre, South Dakota**
Kelly, Fred	**Councilman Sioux City, Iowa**
Kittrell, F. W.	**U. S. Public Health Service Cincinnati, Ohio**
Kuhl, L. V.	**Sioux City Stockyards Company Sioux City, Iowa**

Lamb, Bromleigh S.	Woodbury Co. Taxpayers Conf. Sioux City, Iowa
Laros, John	Bruce Gilmore & Assoc. Sioux City, Iowa
Lindberg, B. L.	Sioux City, Iowa
Miller, Don	News Director, KMNS Sioux City, Iowa
Mullinex, C. D.	H. R. Green Co. Cedar Rapids, Iowa
Murrary, Frances	League of Women Voters Sioux City, Iowa
Orsi, Leo E.	Armour & Company Chicago, Illinois
Parks, Gabe	Reporter, Omaha World-Herald Omaha, Nebraska
Pendleton, D. M.	Sioux City, Iowa
Peter, Leslie	Buell & Winter Sioux City, Iowa
Rasken, Sid	Sioux City, Iowa
Reeves, T. C.	Nebraska Water Pollution Council Central City, Nebraska
Rodun, Ray A.	Sioux City Stockyards Company Sioux City, Iowa
Schlickelman, R. J.	Iowa Department of Health Des Moines, Iowa
Shay, J. R.	Iowa State Health Department Des Moines, Iowa
Shull, Henry C.	Swift & Company Sioux City, Iowa
Shuman, Ben	Reporter, Sioux City Journal-Tribune Sioux City, Iowa

Sifford, Byron L.	**Smith Packing Co. & Albertson Sioux City, Iowa**
Turek, Ernest	**Representing A. H. Baron Sioux City, Iowa**
Ulrich, Herbert H.	**City Sanitation Engineer Omaha, Nebraska**
Walz, Robert C.	**Auditor, City Vermillion, South Dakota**
Winter, Leon	**Buell & Winter Sioux City, Iowa**
Zimmerer, Dr. Edmund G.	**Iowa Department of Health Des Moines, Iowa**